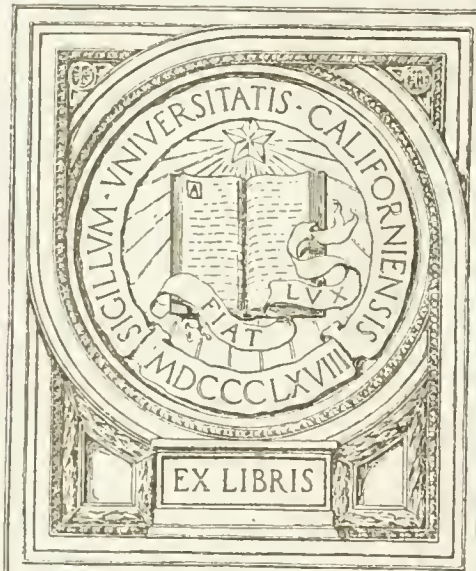
UNIVERSITY OF CALIFORNIA
AT LOS ANGELES



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CANADA

AND ITS PROVINCES

IN TWENTY-TWO VOLUMES
AND INDEX

VOLUME IX

THE DOMINION
INDUSTRIAL EXPANSION

PART I

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AND ITS PROVINCES
A HISTORY OF THE CANADIAN PEOPLE AND THEIR INSTITUTIONS BY ONE HUNDRED ASSOCIATES

GENERAL EDITORS: ADAM SHORTT
AND ARTHUR G. DOUGHTY

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INDUSTRIAL DEVELOPMENT: INTRODUCTION

INDUSTRIAL DEVELOPMENT: INTRODUCTION

NATIONAL character can nowhere be wholly explained by national industries, and economic motives are nowhere omnipotent. Nevertheless, in a new nation set down in a new country, industrial questions are likely to seem of overwhelming importance, and there, if anywhere, will the keen pursuit of material wealth be the universal characteristic of the citizens.

British North America is new in the sense of having come newly into touch with civilization and possessing natural resources ready to be used for the first time.

Its people are new in the sense that they are a union of diverse elements now for the first time brought together into a mass that is growing into a nation. Coming freely from all parts of the civilized world, the newcomers applied the overflowing capital of other lands and the tools and skill perfected elsewhere by the experience of centuries to the extraction of wealth from a territory only explored in fulness within the memory of man, and never fully utilized in any part of it for the service of man till the newcomers themselves appeared on the scene. They found themselves confronted with native inhabitants, not indeed well disposed to them, but unable to throw serious obstacles in their way. The same good fortune had aided the American Colonies, now the United States of America. In both cases the trowel has done more than the sword for the conquest of the country.

Peace, which produces bursts of prosperity in European countries when prolonged there beyond expectation for a score or so of years, is the normal condition of both halves

of the American Continent north of Mexico ; and here it means a profounder sense of security than can ever be felt on the Continent of Europe, where the nations are pre-occupied with naval or military defences, and even in peace are heavily burdened with preparations for war.

Other conditions in Canada are similar to those of the United States, and there is every sign that over the greater part of Canada the progress in material prosperity will be at least as great as has taken place in the United States since the opening up of the West. The total area of Canada is larger, but Canada has also a larger share of those 'less happier lands' for which the most that can be expected is a prosperity not inferior to Alaska's. Over the north and the south of the Dominion the progress cannot be equal so long as physical nature keeps up a secular inequality. Even from the east to the west, over the broad stretches of good land lying between the Gulf of St Lawrence and the Island of Vancouver, the advance has not been uniform ; the attacks of the industrial forces have not been simultaneous and sustained. In the near east, religion and politics have from time to time taken up the chief attention. In the centre and west, as soon as their opportunities have been understood, there have been fewer distractions of this sort. Politics were once of some account apart from industry in British Columbia. They have now small effect there apart from industry, and still less in the prairie provinces.

At present the main devotion of the Canadian citizen is to industry and commerce. High abilities, which would in Europe pass into the professions, are drawn off into business, making the business itself presumably of high quality. The growth of cities, singularly rapid in recent years, brings with it some of the drawbacks of the old countries ; but it puts a more complete civilization within reach of the greatest number. It involves a great relative increase in the power and importance of the city artisan, who, in Canada as in England and the United States, is gradually awakening to a sense both of his power and of the responsibilities of power. Yet Canada is likely to remain for a long time one of the granaries of the world, and the farmer and farm-labourer

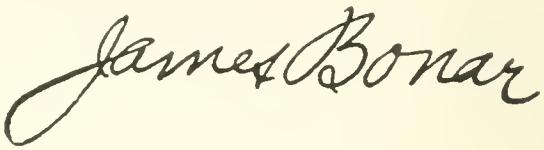
will not soon cease to be her most typical figures in the eyes of the nations.

It is of course certain that, while the progress may go on without limit, the rate of progress will vary and eventually slacken. There will be pauses to take breath. The brilliant early enterprise with its unique opportunities will be followed by the later effort less favoured by fortune and more slowly, though not less solidly, successful. In such a time of nearer approach to maturity Canada may be found sharing more fully in the spiritual wealth that is the common heritage of the new and the older world, and making larger contributions thereunto.

A history of the struggles and conquests, as well as of the checks and pauses, will be found in the various articles of this section of *Canada and its Provinces*, especially in those relating to economic history, railways and labour.

It may be hazardous to say that there are no new worlds to conquer ; but in all likelihood there are no new worlds left that are comparable with the United States or Canada in extent and resources. Though Canada is often described as being in her 'period of construction,' as if that were a well-defined condition through which all countries must pass, she has only one close parallel—the United States. The conditions in Australia and New Zealand, and still more in South Africa, are too unlike Canada's to make these countries instructive to Canadians in the same degree. The United States give more light because they arose from beginnings like those of Canada, have grown towards maturity before the eyes of Canadians, and have now nearly passed their 'period of construction.' Their chief railroads are made ; there remains the slow and sporadic extension of them, as practised in England and other old countries. The free lands are filled up ; the country is settled. The crops, once dispersed to all the world, are now largely held back to feed the great population within the borders of the country that produced them. Canada may read her own immediate future in the present of the United States ; only a generation ago their West was as hers is now. It will, however, be more than a generation before Canada has a population

supplying an ample market for her own crops ; and the character of the people is sufficiently different from that of the United States to make even her industrial development bear a stamp of its own. This will probably be the impression of our readers if they compare the chapters in this section of *Canada and its Provinces* with the corresponding chapters in the later editions of James Bryce's *American Commonwealth.* Canada is learning much from the United States, but has certain advantages which the States do not share ; and she has at all times learned much more from Great Britain in all departments of her life. The balance of obligation, even industrially, would seem to incline towards Great Britain. Yet no idea of gratitude, either to the mother country or to the friendly neighbour, will, or should, prevent her from handling her own problems in her own way, making up her own mind, and shaping her own career.



THE PHYSICAL BASIS OF CANADA

THE PHYSICAL BASIS OF CANADA

I

POSITION, EXTENT AND TOPOGRAPHICAL FEATURES

THE continent of North America has the form of a triangle, with its broad northern base lying approximately along the 70th parallel of north latitude, within the Arctic Circle. Though to the east the land area is continued far northward by the great continental islands of the Arctic Archipelago, it is broken into by the large mediterranean sea known as Hudson Bay, with a length of 800 miles and a width of 600.

Broadly speaking, North America consists of: a mountainous province (the Appalachian region) on the east, stretching north-eastward from Alabama to Newfoundland; a mountainous province on the west (the Western Cordillera), stretching north-westward from Southern Mexico to Alaska; and, between these mountainous belts, a wide medial plain that stretches from the Gulf of Mexico to the Arctic Ocean. To the north-east the strict continuity of this plain may be considered to be interrupted by the Laurentian plateau region, or Canadian Shield, a wide V-shaped area, between whose limbs lies Hudson Bay. This plateau area differs in character and structure from the medial plain, being in fact the remnant of an ancient mountain system that was planed down by long-continued erosion in early geological times.

With the exception of Alaska, Greenland, the small islands of St Pierre and Miquelon, and Newfoundland, which still remains a separate British colony and holds jurisdiction over a strip of the Labrador coast, Canada covers the whole

northern half of this continent, including the adjoining continental islands. Its area is estimated to be about 3,729,665 square miles, which is greater than that of the United States and Alaska, and not much less than that of all Europe.

II

PHYSIOGRAPHIC PROVINCES

Appalachian Region

THE Appalachian region in Canada includes the territory lying east of a line running between the foot of Lake Champlain, on the Vermont border, to the city of Quebec; in other words, most of that portion of the Province of Quebec which lies east of the St Lawrence River, together with the maritime provinces of New Brunswick, Nova Scotia and Prince Edward Island. Throughout the greater part of its extent in Canada, this region is hilly rather than mountainous, while between the ranges of hills, which have as a rule the general north-east trend of the whole mountain system, are valleys sometimes of considerable width and of low elevation. Some ranges, however, attain the altitudes of mountains. In South-Eastern Quebec the Notre Dame Mountains (the continuation of the Green Mountains of Vermont) through considerable areas attain a height of over 2000 feet, culminating in Sutton Mountain, which is above 3000. Opposite Quebec the Notre Dame Mountains are lower, but north-eastward they again rise in elevation until in Gaspe peninsula, where they are known as the Shickshocks, the general elevation is between 1500 and 2000 feet, with many peaks exceeding 3500.

In North-Western New Brunswick the general elevation through a wide stretch is over 1000 feet, with many hills 2500 feet above sea-level; and bordering the Bay of Fundy is another elevated tract about 1200 feet high. But between these two ridges, over a large part of the province, the mean elevation is only a few hundred feet. Prince Edward Island may be considered as an extension of this tract of lowland.

The ranges of Nova Scotia, forming the backbone of the

province, do not much exceed 1000 feet on the mainland, but reach 1500 feet in Cape Breton Island.

The coast-line of the Appalachian region in Canada is in general ragged and rocky, with numerous submerged lowlands and valleys, forming bays, and as many corresponding uplands and ridges outstanding as peninsulas and islands.

Laurentian Plateau

Areally, and in a sense physiographically, the most important geographical province of Canada is the Laurentian plateau region, which covers over 2,000,000 square miles. This wide V-shaped region surrounds Hudson Bay, except for a strip of lowland to the south-west of the bay that extends from Churchill to Rupert Bay.

The south-eastern boundary of the Laurentian Plateau, or Canadian Shield, as E. Suess has named it, lies along the gulf and estuary of the St Lawrence to the city of Quebec; thence a short distance back from the St Lawrence and Ottawa Rivers to the city of Ottawa; thence south to Brockville. A small peninsula from it extends into New York State. The south-western boundary of this region extends westerly from Kingston to the foot of Georgian Bay; thence up the Great Lakes. West of Lake Superior another peninsula of the region extends a short distance into the United States. The boundary re-enters Canada in Eastern Manitoba, and extends north-westerly through Lake Winnipeg, Great Slave Lake and Great Bear Lake, to the Arctic Ocean.

This great region, for the most part, maintains a strikingly uniform character. Though in an ancient geological era a mountain region, it is now a gently sloping plateau, whose even surfaces are broken only by low hills, rising a few hundred feet or less above the general level, and, except for the valleys of the larger rivers, by small, shallow valleys. Save along the Labrador coast where a maximum altitude of about 6000 feet is reached, the land is usually comparatively low, seldom rising above 2000 feet. The south-eastern and south-western margins of the plateau are usually the lines of maximum elevation, from which the plateau gently slopes towards

Hudson Bay. The characteristic abrupt rise of the southern margin of the Laurentian Plateau largely disappears along the western margin, and is even replaced by a drop from the Medial Plain to the plateau level. The highest land of this region is along the Labrador coast near the entrance of Hudson Strait, where the coast rises precipitously to elevations above 7000 feet. Going southward, the coast gradually declines in elevation, but remains precipitous, and so continues along the St Lawrence and the Great Lakes, where the elevation of the southern edge of the plateau is about 1500 feet. This precipitous margin is pierced by deep narrow valleys occupied by the main waterways.

The surface of the Laurentian Plateau is characterized by low hummocky hills ; countless lakes, large and small, often island-studded ; marshy hollows ; innumerable, irregular streams, repeatedly interrupted by rapids, or expanding into lakes, and frequently split into several channels enclosing islands that may be many miles in length. Over wide stretches the surface is an intricate complex of rock and water, but in places this irregularity of surface is screened by a mantle of soil.

St Lawrence Lowlands

Between the north-eastern limb of the V-shaped Laurentian Plateau and the Appalachian region is a comparatively narrow arm from the Medial Plain, but as the apex of the V extends to, and in the Lake Superior district slightly beyond, the international boundary-line, this belt is in Canada separated from the main portion of the plain by a wide stretch of Laurentian plateau. On this account, for convenience of description, it will be considered as a separate physical province, the St Lawrence lowlands, though it is to be remembered that it is in reality an integral portion of the Medial Plain.

The St Lawrence lowlands, as above described, extend from a short distance below Quebec city to Lake Huron, with a length of 600 miles and an area of 35,000 square miles. The eastern portion of this region, extending east of the spur of the Laurentian Plateau that runs south from about twenty-

five miles west of Ottawa to and into New York State, at the lower end of Lake Ontario, has an area of about 11,400 square miles. For the most part it is a low, level plain bordering the St Lawrence River. Nowhere does it exceed a few hundred feet in elevation, except where it is pierced by a few volcanic remnants, such as Mount Royal at Montreal, which rise above the surrounding plains to heights of 500 to 1800 feet. A second division of the lowland extends westward from the Laurentian spur at Kingston to Georgian Bay and the western end of Lake Ontario. This plain rises from Lake Ontario (247 feet above sea-level) to elevations of about 850 feet and has an area of about 9000 square miles. It is bounded on the south and west by the Niagara escarpment which, after causing the Falls of Niagara between Lakes Erie and Ontario, runs across Ontario to Lake Huron, forming the long projecting point between the lake and Georgian Bay, and extending on through Manitoulin Island. The last subdivision of the lowland is a triangular area between the Niagara escarpment and Lakes Erie and Huron. This is often called the Ontario peninsula or the South-Western peninsula. Its south-western extremity reaches the 42nd parallel, the latitude of Rome. The land rises rapidly from the Niagara escarpment, reaching an elevation of 1700 feet. From this summit the land slopes to the Lakes. Erie stands at 572 feet and Huron at 581 feet above sea-level. The area of this peninsula is 14,200 square miles.

Interior Continental Plain

The major division of the Medial Plain extends in Canada from the western border of the Laurentian Plateau near the eastern boundary of Manitoba to the Rocky Mountains, a width along the international boundary-line (49th parallel) of about 800 miles. This width is reduced along the 56th parallel to about 400 miles, and the plain may be said to terminate about latitude 65° at Great Bear Lake. The southern portion of this region includes the wide stretch of open grass-lands of the Canadian North-West, which covers an area of about 193,000 square miles. North of the North

Saskatchewan River to the northern limit of trees, the plain becomes forested, with only occasional prairie tracts such as the Peace River valley. The international boundary-line happens to coincide exactly with the watershed between Mississippi and Saskatchewan waters, so that all of the interior continental plain in Canada, except about 12,000 square miles in Southern Alberta or Saskatchewan, drains either to the Atlantic by way of Hudson Bay or to the Arctic. Curiously enough, the 54th parallel also coincides approximately with another low watershed that separates the Saskatchewan River waters from those of the Mackenzie and Churchill Rivers.

The slope of the plain is, therefore, eastward or north-eastward from the Rocky Mountains to the edge of the Laurentian Plateau. The descent from the Rocky Mountains to Lake Winnipeg, parallel to latitude 49°, is over five feet to the mile ; consequently the rivers are rapid and have as a rule sharply cut valleys. These deep valleys, below the general level of the plains, are perhaps their most striking topographical feature.

The plains, for purposes of description, are conveniently divided into three parts : the most easterly and lowest prairie level is that of the Red River valley, of which the northern part is occupied by the Winnipeg group of lakes. To the eye it is absolutely level and featureless, but in reality it has a slight slope northward and also a slight slope from each side towards the Red River. Its area in Canada is about 55,000 square miles. Its average elevation is about 800 feet above sea. Bounding this flat prairie on the west is the Manitoba escarpment or first prairie steppe. This prominent escarpment runs north-westward from the international boundary for 300 miles. It has been cut through by the main river valleys, thus forming ' Pembina Mountain,' and Riding, Duck, Porcupine and Pasquia hills. From this escarpment the second prairie level extends westward for 250 miles to a second, nearly parallel, prairie steppe, the Missouri Coteau. This second prairie level has an area of about 105,000 square miles. Its general elevation is about 1600 feet. Its surface, unlike that of the first prairie level,

is undulating, with low hills and ridges rising a few hundred feet above the general level, and with deep and widely trenched river valleys. The Missouri Coteau has a fairly abrupt rise of from 300 to 500 feet. The third prairie level extends from the Missouri Coteau to the Rockies. The level of this portion of the plains rises from 2000 to 2500 feet along its eastern border to over 4000 feet along the base of the Rockies. Its surface is still more diversified than that of the second prairie steppe, forming the typical 'rolling plains,' trenched by ravines or coulées. Table-lands, like Cypress Hills and Wood Mountain, rising 1000 to 2000 feet above the general level, further break the regularity. These table-lands are the remnants of an older plain now largely removed by erosion. Along the base of the mountains is a belt of picturesque 'foothills.'

Hudson Bay Basin and Arctic Archipelago

The Hudson Bay basin is enclosed by the Laurentian Plateau. From the Churchill River to Rupert Bay, however, the edge of the plateau does not quite reach the shores of the bay, but is bordered by a fringe of lowland—about 100 miles wide south of the bay and from 200 to 250 miles wide west of James Bay—with a very low gradient to the sea, and for some distance seaward, so that off this coastal plain at some points one may ground in a canoe when out of sight of land. The transition from the Laurentian plateau to the coastal plain is imperceptible to the eye south-west of the bay, but south and south-west of James Bay there is a rather rapid drop from the plateau to the plain. The surface of this plain is poorly drained, and much of it is muskeg, the dry ground usually being confined to a narrow strip bordering the streams.

North of the mainland, between Baffin Bay and Davis Strait on the east and the 125th meridian on the west, and extending from north of Hudson Bay and Strait to 83° N latitude, or a distance of about 1300 miles from east to west and about 1500 miles from north to south, lies the Arctic Archipelago, with a land area of over 500,000 square miles.

Included in this archipelago are at least twenty islands of areas above 500 square miles, while the largest, Baffin Island, has an area of 211,000 square miles, or nearly twice that of Great Britain and Ireland. Other large islands are Ellesmere, 76,600 square miles, and Victoria, 74,000 square miles. In general the eastern limb of the Laurentian Plateau is continued through the eastern islands, while the western islands have the character of a continental plain. The eastern coast of Baffinland is high, rising quickly to 1000 feet or more, followed by a more gradual rise to the interior table-land. This in the south has an elevation of 2000 to 3000 feet, while northward it increases to about 5000 feet with hills rising 1000 or 2000 feet higher. Still farther north the elevation sinks to perhaps 3000 feet and so continues into North Devon and Ellesmere Island, where, however, peaks rise to 5000 feet. The western portion of Baffin Island has a general elevation of about 1000 feet. The same elevation continues in the islands to the westward but sinks to 500 feet in Victoria Island. It rises, however, in Banks Island, the most westerly of the group, to 1000 feet and even to 3000 feet over considerable areas.

The portions of the islands belonging to the Laurentian region frequently support thick ice-caps, though, on account of limited precipitation, the ice-caps are not as extensive, and do not cover the interiors, as one might naturally expect.

The Cordilleran Region

The last and most striking geographical province of Canada is that embracing the Western Cordillera. This great mountainous region, having in Canada a length of nearly 1300 miles and an average width of 400, is but a part of the great belt of mountain systems bordering the Pacific that extend through Mexico and the Western States, Canada and Alaska, to the Arctic Ocean and Bering Sea. In Canada this region includes all British Columbia and the Yukon, the western part of Alberta and a portion of the North-West Territory, an area of approximately 600,000 square miles. The Cordilleran region differs from the Appalachian and

from the Laurentian Plateau regions, in having suffered mountain-building movements up to dates so recent that the existing relief bears a significant relation to these uplifts, whereas, in the older mountain districts to the east, the corresponding relationships have been obliterated by erosion.

Just as the Appalachian ranges were formed by crustal movements folding the strata with ridges parallel with the Atlantic coast, so the Cordilleras were formed by great crustal movements which at different periods and along different lines have crumpled, crushed and dislocated the strata parallel to the Pacific coast. Consequently, its strongly marked physical features are found to have a general trend parallel to the western Pacific coast.

As might be expected in a mountainous region of such vast dimensions, a great variety of mountains and plateaus may be found; lofty, snow-covered, glacier-supporting, Alpine peaks; subdued, even-sloped, timbered or grass-covered ridges; volcanic cones and dissected volcanoes; plateaus and lava fields, both fresh and deeply dissected. Great variety of structure in the mountains also obtains, but although some of the mountain-building movements are of comparatively recent date, and while some of the mountains have forms that are dependent upon their structure, most of the physical features are sculptural, the result of deep dissection by strong agents of erosion.

The Cordilleran belt, which in the United States attains a width of 1000 miles, becomes compressed at the 49th parallel to about 400 miles, with a consequent loss of plateau stretches between the component ranges and with an increase in ruggedness. Easy passes through the mountains, which are found south of the international boundary, disappear to the north, and it is not till the Athabasca, Peace and Liard Rivers are reached that the Cordilleran belt may be crossed with comparative ease. North of the Peace River the belt begins to widen, its eastern elements spreading eastward towards and across the Mackenzie River.

The Cordilleran region of Canada when viewed in detail appears a wild, disordered area of mountains baffling description, but when studied and mapped it is found to consist

of several broadly developed structural elements. Only the southern portion of it, however, has been sufficiently explored to permit of such definition. Regarding its central and northern portions, only very generalized statements may be made. The belt between the 49th and 52nd parallels will therefore be described with only incidental references to the central and northern portions.

Rocky Mountains

Along the eastern front of the Cordilleran belt lies the Rocky Mountain system, with many peaks rising to heights of from 11,000 or 12,000 feet. Mt Robson in Yellowhead Pass, with an elevation of 13,700 feet, is the highest known mountain of the system. The Canadian Rockies extend north-westward from the international boundary to the Liard River, a distance of about 850 miles. They are bounded on the west by a remarkable longitudinal valley occupied in the south by the head-waters of the Columbia and Fraser Rivers, and in the north by tributaries of the Peace and Liard Rivers, and have a width in the south of about sixty miles. North of the Liard the Rockies appear to branch, one system, known as the Mackenzie, with peaks up to 7000 feet in elevation, continuing northward and north-eastward, occupying a large, almost unknown territory some 300 miles wide between the Yukon and Mackenzie Rivers. At Gravel River these mountains are within forty miles of the Mackenzie. East of the Mackenzie system, on the east side of the Mackenzie River valley, a second projection of the mountains, between latitudes 63° and 66°, forms the Franklin range. The highest points of the Franklin range probably do not exceed an elevation of 5000 feet, that disappears to the north in the wide plain stretching to the Arctic Ocean and the mouth of the Mackenzie.

The summit of the Rockies forms the continental 'divide' between the waters flowing to the Atlantic and Arctic and those flowing to the Pacific, except in the cases of the Peace and Liard, which have broken through this barrier for some distance.

Gold Ranges

West of the Rockies, and separated from them by the Columbia valley, are the Gold Ranges, which differ markedly in structure and appearance from the former, though not less rugged or Alpine. These ranges have a width at the international boundary of about 150 miles, but narrow down as they proceed northward. Their western boundary is the Interior Plateau. The Gold Ranges thus defined are divided by the long longitudinal valley followed by the Columbia River on its southward return into an eastern system, known as the Selkirks, and a western known as the Columbia Mountains. The Selkirks are rugged, snow-capped, Alpine peaks that attain elevations of from 9000 to nearly 12,000 feet. Glaciers are extremely numerous in these mountains. The Selkirks are subdivided, by the longitudinal valley occupied by Kootenay Lake, into two subordinate ranges. In the Cariboo district the Gold Ranges are represented by the Cariboo Mountains. North of these the elevations become lower, and the country becomes plateau-like, but broken by occasional ranges that have not yet been sufficiently explored to be accurately classified.

Interior Plateaus

Lying between the Gold Ranges and the Rocky Mountains in the east and the Coastal System in the west is a region that bears a marked contrast to the lofty bordering mountain systems. It may be subdivided into three portions: a southern, a central, and a northern. The southern is what is known as the 'Interior Plateau' or 'Dry Belt.' It terminates northward about latitude 55° 30′ in a plexus of mountains without wide intervals. Its width is about 100 miles—between the Columbia Mountains and the Coast Range—and its length about 500 miles. While strictly speaking mountainous, the ridges are not sharply serrated, and have a generally uniform elevation, partly due to erosion below the zone of intense weathering and partly to volcanic accumulation. In the lower, northern portion, the general elevation is

not more than about 3500 feet. The ridges and mountains which break the surface of the country seldom rise above 5000 feet. It is dissected by great valleys, often steep-walled, and cañon-like at the bottoms. The major valleys do not lie more than 1000 feet above sea-level.

As the Interior Plateau lies west of and much below the Coast Range over which the prevailing winds sweep, it is a dry country, consequently a dominantly grass country, and this contrast in vegetation further differentiates it from the wet and wooded, high, mountainous belts that bound it on either side. Between the Interior Plateau and the northern boundary of British Columbia is the central district, at present imperfectly known. It is occupied by various groups of mountains of generally rather subdued outline.

In the northern district, beyond the British Columbia boundary, between the Mackenzie Mountains and the Coast Range, is another wide plateau, known as the Yukon Plateau, that stretches down the valley of the Yukon to Alaska. It is broken by deep valleys from 1000 to 3000 feet below the surrounding country, but the uplands are broad, gently sloping areas that appear to be the remnants of a once continuous plain with a gradual slope northward from 4000 feet to about 1000 feet or less.

The Coastal System

Between the Interior Plateaus and the Pacific Ocean the country is again high, rugged and Alpine. This system of mountains consists of several ranges, of which the Coast Range is the greatest and most important. Along the international boundary the first range west of the Interior Plateau is the Cascade Range. This, while one of the great ranges of the Western States, is unimportant in Canada, for, while over one hundred miles wide on the boundary-line, it quickly narrows down to a point at Lytton.

It is succeeded north and west of the Fraser River by the Coast Range, which, with a width of 100 miles, runs northwestward for at least 900 miles, when it passes inland at the head of the Lynn Canal. Many of the main summits exceed

8000 or 9000 feet, and on the western side rise directly from the sea. In the north, as at the head of Portland Canal, where the snow-line is only about 4500 feet, the mountains are exceptionally rugged, steep and Alpine. The Coast Range, particularly in the north, supports countless snowfields and glaciers.

Though high and rugged, the Coast Range is traversed by a number of deep transverse valleys, through which rivers rising in the Interior Plateaus escape to the sea. The seaward-facing transverse valleys and ridges are partially submerged, forming the long fiords, channels and islands that make the western coast so remarkable and picturesque.

Outside the Coast Range, and in a partially submerged condition, with the dividing trench almost submerged, is the Vancouver range, of which Vancouver Island and the Queen Charlotte Islands are projecting ridges. This range forms the border of the continental shelf. Beyond it are the great depths of the Pacific.

The submerged trench between the Vancouver range and the Coast Range, with the channels and fiords above referred to, furnishes what is probably the most remarkable inland salt-water navigation in the world. From Seattle, on Puget Sound, to Skagway, on Lynn Canal, a distance of over a thousand miles, river boats can navigate with only a couple of sounds, open to the ocean, to cross.

The Coast Range, as above remarked, turns inland at the head of Lynn Canal, but its place along the sea-coast is taken by the St Elias Range, along which the boundary between Canada and Alaska runs to the 141st meridian. With the exception of Mt McKinley, which lies some distance to the north-west in Central Alaska, the highest peaks in the whole Cordilleran region of North America are found in the St Elias Alps, such as Mt St Elias, 18,000 feet, and Mt Logan, the highest known point in Canada, 19,540 feet. They are snow-clad and glacier-mantled for almost their entire height.

Volcanoes of commanding form, which here and there dominate the plateaus and mountains of the Cordilleras in the United States and Mexico, are not a feature of the well-known portions of the Canadian Cordilleras. Mt Baker,

however, is only a short distance south of the British Columbia boundary, and volcanoes occur in the St Elias Alps. A recent volcano has been found in the Stewart River district, and on further exploration others will no doubt be met with at other points. Volcanic activity was, however, a marked feature during Tertiary times ; the volcanic material, although now to a great extent removed by erosion, forming thick deposits over large areas of the Interior Plateau, but being found also at various points throughout the entire length of the Cordillera from near Vancouver to Alaska.

III

RIVERS AND LAKES

GEOGRAPHICALLY and historically no physical feature of Canada is more important than the great length of its principal watercourses, and the manner in which they interlock and penetrate almost every part of its area. By canoe it is possible to travel in almost any direction over a large part of the entire country. The great St Lawrence, with its numerous tributaries—one of which, the Ottawa, is 700 miles long—drains a basin, largely in Canada, of 530,000 square miles. From the Strait of Belle Isle the gulf, estuary and river are navigable to Montreal, a distance of 1000 miles, by large sea-going vessels ; while above Montreal, by the aid of a few canals, the river and the Great Lakes can be navigated by large boats for 1400 miles farther, into the heart of the continent.

In addition to the St Lawrence there are three other rivers of the first class whose watersheds are wholly or largely in Canada—the Nelson, Mackenzie and Yukon.

The Nelson basin, of 367,000 square miles, extends from the Rocky Mountains to Hudson Bay, into which the river drains ; and from the international boundary to the 54th parallel as far east as The Pas ; thence north-east to the bay. The Red River valley, tributary to this river, extends south of the international boundary to the head of the Mississippi River. The Mackenzie, flowing into the Arctic, drains not

only all the northern portion of the interior plain, but considerable portions of both the Rocky Mountains and the Laurentian Plateau regions. Indeed, of the 1,200,000 square miles of Canada sloping to the Arctic, the greater part is drained by the Mackenzie and its tributaries. This river system has a maximum length of about 2500 miles.

The Yukon, draining the northern part of the Cordilleran belt into the Pacific, is about 2000 miles long. Its basin in Canada has an area of about 145,000 square miles.

It is only by contrast with these greatest rivers that many more are relegated to a second or third rank. Thus the Churchill, draining into Hudson Bay, has a length of 1300 miles. Even the Fraser, nearly 700 miles long, and the Columbia, only partly in Canada—both draining the southern portion of the Cordilleran belt into the Pacific—are notable rivers.

It will be apparent that the greater part of Canada lies on the northern slope of the continent, and that the remainder is divided between the Atlantic and the Pacific, only 13,000 square miles draining southward. In this connection a few of the levels of the larger lakes may be useful as indicating the lowest levels of large tracts of adjacent land: Lake Ontario, 246 feet above the level of the sea; Lake Superior, 602 feet; Lake of the Woods, 1057 feet; Lake Winnipeg, 710 feet; Lake Athabasca, 620 feet; Great Slave Lake, 520 feet; Great Bear Lake, 390 feet; Kootenay Lake, 1760 feet; Atlin Lake, 2200 feet.

Remarkable as are her rivers, Canada is still more noteworthy as a country of lakes, both from their size and number. The interior and the edges of the Laurentian Plateau form the principal lake region, but lakes are also found in the uneven glacial deposits of the Medial Plains, in the valleys of the Appalachian region, and in the fiord-like trenches of the Cordilleras.

The Great Lakes of the St Lawrence have an area of 95,000 square miles, of which Lake Superior, the largest, occupies about 31,800 square miles. Its greatest depth is over 1000 feet. Lake Ontario, the smallest, has an area of 7260 square miles. Lake Winnipeg is larger than Ontario, having

an area of 9460 square miles, while Great Slave Lake has an area of 10,719, and Great Bear Lake of 11,820 square miles. Thus what are known as the 'Great Lakes' do not in all respects outrank all others in Canada. There are nine other lakes with a length exceeding 100 miles, and thirty-five more exceeding 50 miles. It is a striking fact that the larger lakes and the St Lawrence lie along the southern border of the Laurentian plateau. The lakes lying within the Laurentian plateau are legion, ranging in size from lakes of the first rank to ponds too small to be represented on large-scale maps. The Laurentian lakes are characterized by formless shapes, irregular bays and myriads of islands. In many cases one lake simply spills over into the next basin below, so that chains of lakes are typical. Remarkably numerous and powerful waterfalls, which are destined to play a most important part in the industrial development of the country, are thus occasioned. Their situation in the coalless districts of Canada increases their usefulness. The numerous lakes act as reservoirs and settling basins, so that the rivers which drain them are wonderfully steady in flow and pure in quality.

Many of the smaller lakes in the Laurentian are bordered with marshes, and are gradually filling up with vegetable growth, becoming peat bogs or muskegs.

The long fiord-like lakes of the Cordillera have great scenic attractions, and are also important as means of communication. In addition to the better known lakes, such lakes as Kootenay, Slocan, Arrow, Okanagan and Atlin may be mentioned as possessing almost matchless beauty.

The lakes of Canada are freshwater, but on the plains there are a few small lakes, such as Old Wives' Lake in Southern Saskatchewan, that have no outlets and are consequently alkaline. In these the heavy evaporation equals the supply of water entering the lakes, so that no outlet is required. The entering streams, of course, contain a small amount of salt in solution, which is left in the lake as the water evaporates, gradually rendering the lake saline. In summer, when evaporation exceeds the supply, round the edges of such lakes and ponds may be seen a white rim of the salts, mostly magnesian.

Prepared expressly for Canada and Its Provinces

The Edinburgh Geographical Institute

and Its Provinces."

John Bartholomew & Co

IV

GEOLOGY AND ECONOMIC MINERALS

THE physical features of the country, of course, depend upon, and result from, its structure and geological history.[1] Its settlement and industrial development are largely influenced by these factors, so that it is pertinent to discuss the geology in some detail.

On account of the relationship between physiographical features and geology the geographical provinces into which we have divided Canada for the purposes of description are the natural geological provinces, each characterized by its own particular rocks and structure and its own distinctive economic minerals. Knowing in which geological province a region lies, one can make a shrewd prediction as to its general character and the nature of its economic resources.

The Appalachian Region

The typical structure of the Appalachian mountain system is a close folding of the strata, through mountain-

[1] The divisions of geological time and the names applied to the groups of rocks formed during these periods:

- Recent
- Tertiary: Pliocene, Miocene, Eocene
- Laramie: Cretaceous
- Mesozoic: Cretaceous, Jurassic, Triassic
- Palæozoic: Permian, Carboniferous, Devonian, Silurian, Ordovician, Cambrian
- Pre-Cambrian: Keweenawan, Upper Huronian, Middle Huronian, Lower Huronian, Keewatin, Laurentian

building forces, into anticlines and synclines (∽ shaped folds), accompanied by the breaking and dislocation of the strata (faulting) where the breaking point was exceeded. Over large tracts, in the Appalachian region of Canada, the strata, chiefly Palæozoic in age, are consequently much disturbed and faulted, and now lie in highly inclined positions, and there is a pronounced tendency for the various formations to occur in elongated bands, striking approximately north-east and south-west, parallel to the axes of the folds and of the resultant mountain ranges. Along the central axes of folding and uplift, in the Eastern Townships of Quebec, in Gaspe, in the two hilly areas of New Brunswick, and in the northern and eastern portions of Cape Breton Island, and probably along the southern half of the Nova Scotia peninsula, rocks of pre-Cambrian age are exposed. These are portions of the ancient floor, upon which the Palæozoic sediments were deposited, brought to view by the mountain-folding and subsequent erosion.

Palæozoic sediments are well represented in this region. Cambrian and Ordovician strata occupy much of the Appalachian portion of Quebec. Silurian and Devonian strata are found in Gaspe and North-Western New Brunswick: associated with older strata they are found in the southern part of this province. Devonian and older rocks form the main part of Nova Scotia. In the Canadian Appalachian region Carboniferous and Permian rocks are confined almost entirely to the Maritime Provinces, where they border the shores of the Gulf of St Lawrence, extend almost entirely across Central New Brunswick, and cover the whole of Prince Edward Island. Triassic measures occur along the shores of the Bay of Fundy in both New Brunswick and Nova Scotia, but with this exception—the Mesozoic and Tertiary systems are unrepresented in this region in Canada. Closing this unrepresented lapse of geological times, we find only the sands and clays of the Glacial period, with recent deposits, such as the fertile marsh-lands of the Bay of Fundy. In addition to the sediments there are, over considerable areas, intrusive igneous rocks, and, in certain localities, volcanic outflows.

The pre-Cambrian rocks of the Appalachian region are mostly of igneous origin, and no separation into groups or correlation with the typical pre-Cambrian of the Laurentian Plateau has as yet been effected. In the Eastern Townships of Quebec the pre-Cambrian rocks appear to be almost wholly basic volcanic rocks, which, however, are intimately associated with metamorphosed Palæozoic sediments. In Gaspe, granites, acid volcanics, and possibly sediments are included. The same is true of Northern New Brunswick, while in Southern New Brunswick and Cape Breton, in addition to large volumes of granites and gneisses, altered acid and basic volcanics are common, and some schistose rocks occur that are possibly of sedimentary origin, as is the associated crystalline limestone.

The Gold-bearing (or Meguma) series of Nova Scotia, which has usually been referred to Cambrian, is in all probability also pre-Cambrian. This important series, with large masses of intrusive granites of later age, occupies the whole of the Atlantic coast of Nova Scotia. It consists of a lower division of quartzites, and an upper one mainly of slates, thrown into a series of Appalachian folds. Batholiths of granites of more than one intrusion, but probably Devonian or early Carboniferous, cut into this gold-bearing series, and along its folds in the lower quartzite division there is a widespread system of quartz veins and saddle reefs, often gold-bearing.

Cambrian.—In the vicinity of St John (New Brunswick), and also in Cape Breton Island, a remarkably complete and interesting section of highly fossiliferous Cambrian rocks occurs. In Quebec an almost continuous belt of Cambrian sediments extends from the Vermont border to the extremity of Gaspe. The Cambrian fauna of the Maritime Provinces bears a close resemblance to that of Northern Europe, but is, in some respects, unlike that of the neighbouring Cambrian of Quebec, suggesting that while the sediments of the Maritime Provinces were deposited near the shore-line of the Cambrian ocean, the Quebec sediments were formed in a long sound that, from Gaspe to the Southern States, was separated from the Cambrian ocean.

Ordovician.—Both of these seas appear to have continued their existence into Ordovician times, though the relative positions of the coast-lines shifted with successive earth movements, for, in the northern portion of the peninsula of Nova Scotia, Ordovician sediments, mingled with igneous rocks that may be contemporaneous volcanic material, are found, and in New Brunswick Ordovician beds stretch through the hilly country north-easterly to Chaleur Bay. The rocks of this region are often penetrated by large bodies of granite and other igneous rocks. In Quebec various divisions of the Ordovician are represented. Towards the close of the Ordovician the Appalachian region of Eastern America was involved in a series of mountain-building movements, during which the strata were folded and much, if not all, of this portion of the continent was elevated above the sea and subjected to erosion, before the transgression of the Silurian sea which appears to have covered much of the Maritime Provinces and the Appalachian region of Quebec.

Silurian.—Throughout Western and North-Western New Brunswick and the Gaspe peninsula large tracts are floored with great volumes of shales, sandstones and limestones of Silurian age, the sediments laid down in this Silurian sea. With these sediments are many igneous rocks, some of them products of contemporaneous volcanoes. In North-Eastern Nova Scotia Silurian strata also occur ; at one locality in Northumberland Strait a nearly continuous section, 3000 feet thick, of the whole Silurian system is exposed.

Devonian.—Devonian strata are found over a considerable portion of the Canadian Appalachian country. The earlier beds are marine deep-water deposits ; but large portions of the system consist mainly of shales and sandstones often rich in the remains of land plants, which indicate shallow-water deposition near land. At one point in Nova Scotia beds of tuffs occur in the Devonian, showing that there was some volcanic activity.

In late Devonian and perhaps early Carboniferous times the region was again subjected to mountain building, and the strata folded and faulted. Successive intrusions of granites and allied rocks occurred over considerable areas.

From this time forward until a comparatively recent geological date nearly the whole of Quebec remained a land area, but large portions of the Maritime Provinces were during the succeeding period gradually depressed and floored with great volumes of sediments. The contacts of these Carboniferous with the older formations still indicate in many places the sinuous shore-lines where the waves of the Carboniferous sea broke against the ancient beach and headland.

Carboniferous.—The Carboniferous strata of the Maritime Provinces, in which occur the prolific coal seams of Nova Scotia, are of great thickness. The famous Joggins section, on the shores of the Bay of Fundy, has a thickness of over 14,500 feet, exposing more than seventy seams of coal. It, however, runs up into strata younger than Carboniferous. Throughout the region bordering the Straits of Northumberland the Carboniferous measures are succeeded by a heavy series of Permian rocks that extend throughout Prince Edward Island. The Carboniferous in New Brunswick occupies about 10,000 square miles, bordering the eastern shore and contracting inland between the two elevated districts of the province, but its thickness is here very small. The Carboniferous and succeeding rocks extend into Nova Scotia, covering much of the country north of the Bay of Minas and extending into Cape Breton. As they also occur on the Magdalen Islands far north in the Gulf of St Lawrence, there is reason to believe that large tracts of this formation still lie beneath the waters of the gulf. In the lower portion of the Carboniferous a marine limestone occurs accompanied by thick beds of gypsum. The later rocks are mostly shales, sandstones and conglomerates. Several local unconformities between different portions of this great succession of beds have been noted, marking intervals of local movements.

The measures are generally nearly flat or gently folded, though locally more disturbed and broken by dislocations of considerable magnitude. With the beginning of the Mesozoic the Maritime Provinces appear to have become a land area. In the Triassic, red shales and sandstones were deposited along the shores of the Bay of Fundy, probably in a bay of the Mesozoic sea. With them are thick sheets of

diabase, which in Nova Scotia overlie the Triassic sediments that extend along the shore with few breaks for 250 miles.

This closes the important subaqueous history of the Appalachian region in Canada. The periods of mountain building, which so folded and disturbed the older strata, had come to a close. From this time forward the region appears to have remained a land area subjected to subaerial erosion, by which its mountainous character was reduced and subdued. This process of degradation appears to have been far advanced in Cretaceous times, when portions of regions were probably reduced to a sloping plain. But some clays occur at Shubenacadie and in Musquodoboit valley that may be Mesozoic, indicating limited sedimentation in that period.

Economic Minerals.—The Appalachian region in Canada, as in the United States, is important for its economic minerals.

The most valuable, from an industrial as well as a monetary standpoint, is coal, which is extensively mined in Nova Scotia, the royalties from this product furnishing over one-half of the entire revenues of the province. Mining commenced more than two hundred years ago, but it was not until the third decade of the last century that the industry assumed notable proportions. The coal is bituminous, of good quality, suitable for steam, coke and gas. It occurs in the Carboniferous measures, and is mined in five localities—Sydney and Inverness County, both in Cape Breton Island; Pictou County and Cumberland County in North-Eastern Nova Scotia; and Grand Lake, New Brunswick.

The Sydney fields extend for thirty miles along the seacoast of North-Eastern Cape Breton, and underlie fifty-six square miles of land area as well as a large, at present undefined, submarine area, into which mining operations extend. The coal measures are gently folded into three anticlines and four synclines. The measures, largely sandstones and shales, contain in all twenty-four seams, containing from forty to fifty feet of coal; of these, six contain three or more feet of coal. The similarity and persistence of the seams over the whole area are remarkable.

The Inverness field includes a series of narrow areas dipping under the sea, and extending for fifty miles along the

western shore of the island. Seams of coal from two to twelve feet thick occur. In Richmond County, also, coal is found.

The Pictou field on the mainland has an area of twenty-five square miles, but the coal seams are often of great thickness, one being thirty-eight feet. The structure of the district is complicated, being folded and faulted.

The Cumberland field contains two producing areas, the Joggins and Springhill. In the Joggins section, along Chignecto Bay, of the numerous seams several are from five to six feet thick. In the Springhill district the geological structure is less simple. Eight seams occur, varying in thickness from two feet four inches to thirteen feet.

In New Brunswick the productive measures seem to be localized to approximately one hundred square miles about Grand Lake, where two seams, six to ten inches and twenty to twenty-four inches thick respectively, occur. Sometimes these two seams approach within six inches of each other. These nearly flat seams lie close to the surface, so that in places they are worked in open pits.

Bituminous shales occur in New Brunswick, at a few points in Nova Scotia and in the Gaspe peninsula. The oil-bearing shales of New Brunswick occur south of Moncton, being exposed at intervals from near Dorchester westward to a point south of Norton—a distance of fifty miles. The richer shales, when retorted, yield 30 to 80 gallons of crude oil, and from 65 to 112 pounds of ammonium sulphate per ton. So far these have not been utilized commercially, though from the Albert shales at Albert Mines a large vein-like body of albertite, a hard bituminous substance, was mined for twenty years, and the shales are now being prospected with a view to establishing an industry.

Considerable boring for oil has been done in Gaspe, Cape Breton and Southern New Brunswick, but without success. Recently, however, a large gas-field with some oil has been found south of Moncton (New Brunswick).

Next to coal, the most important mineral produced in the Appalachian regions of Canada is asbestos, which is extensively mined in the Eastern Townships of Quebec, near Black

Lake, Thetford, East Broughton and Danville. This forms the main source of the world's supply of asbestos. The asbestos occurs in veins in serpentinized peridotite, varying in width from mere lines to several inches. The mining is usually carried on by means of large open pits.

Gypsum deposits are very extensive, forming beds of as much as two hundred feet in thickness in the Lower Carboniferous. Associated with it, somewhat irregularly, is anhydrite, from which the gypsum appears to have been derived. It is mined at a number of points, notably at Hillsborough (New Brunswick), and near Amherst and Windsor (Nova Scotia).

The Appalachian region is well supplied with materials for building. The granites, utilized for paving, building and ornamental purposes, are found in the Eastern Townships, near Staynerville and Stanstead ; in New Brunswick, near St George ; and at several points in Nova Scotia.

Excellent marbles have been produced in the Eastern Townships at Philipsburg and Stanbridge.

Roofing slates are worked near Kingsbury and at other points.

The sandstones of the Carboniferous and Permian furnish excellent structural stone and grindstone, in both New Brunswick and Nova Scotia.

Clays and shales of industrial value are found, those at Shubenacadie and Musquodoboit and near Grand Lake being excellent for refractory and higher quality clay products.

Infusorial earth occurs in both New Brunswick and Nova Scotia, and moulding sand is produced to some extent.

Deposits of barite are widespread in North-Eastern Nova Scotia, and are worked at Lake Ainslie and North Cheticamp, Cape Breton.

Metallic Minerals.[1]—Gold is found in traces at many points in the Appalachian region, but its two most prominent occurrences are in the Gold-bearing series of Nova Scotia, and in the alluvial deposits of the Chaudière River and its tributaries in South-Eastern Quebec. It is also found in the antimony ores of West Gore, Hants County (Nova Scotia),

[1] See Appendix I.

and in copper ores of South-Eastern Quebec. At Gays River (Nova Scotia) the Lower Carboniferous conglomerate overlying the Gold-bearing series contains gold. In Cape Breton gold veins have been found, and gold is also noted at other points.

The gold districts of the Gold-bearing series of Nova Scotia are of special interest, not only on account of their productiveness, but on account of their wide distribution and the regularity of their mode of occurrence. The gold occurs in deposits of quartz with some calcite, which, on the domes of the closely folded series, commonly follow planes of stratification in bands of slate in the thick quartzites of the lower division. The quartz is usually dense, dark, ribboned, and characteristically corrugated, or 'barrelled.' Pyrite and arsenopyrite occur both in the quartz and in the country rock. The main production has been from rich shoots in the veins, where the gold has been free milling, and some remarkably fine specimens of free gold are often found. In more recent years attempts have been made to work the lower-grade quartz. The gold industry of Nova Scotia has been in existence since 1860.

The alluvial gold of South-Eastern Quebec has been worked along the Chaudière River and its tributaries, particularly the Gilbert. It has also been recovered from the valley of the Dilton River. Much of the gold is coarse, one nugget weighing, according to reports, 52½ ounces. The main source of placer gold has been the pre-Glacial sands and gravels of old Tertiary rivers. These sands and gravels are in many places buried under seventy-five or more feet of Glacial and more recent deposits. The disintegrated bed rock under a paystreak has often proved to be particularly rich. The original source of the placer gold is not known, but it was probably obtained from the pre-Cambrian volcanic rocks.

Copper occurs at many points throughout the region, but only in the Eastern Townships has it formed the basis of a steady mining industry. Here workings have reached a depth of about three thousand feet. The ores being mined consist of chalcopyrite with subordinate chalcocite and bornite in pyrite in the schistose porphyries and andesites of the pre-Cambrian. The deposits have the form of flattened

lenses, *en échelon*, lying parallel to the foliation of the enclosing rocks. Besides copper, the sulphur is recovered, and the small content of silver and gold.

Two other types of copper occurrences are found in the Eastern Townships, as irregular deposits of chalcopyrite, chalcocite and bornite in the Ordovician sediments near intrusive dikes, and as chalcopyrite in pyrrhotite at points along the contact of intrusive diabase with the Ordovician.

Ores of copper have been found at many places in Nova Scotia and New Brunswick. At Cape d'Or native copper is found along joints in the Triassic diabase. Chalcocite and malachite in nodules are found in sandstone, and considerable work has been done in chalcopyrite deposits in pre-Cambrian felsite at Coxheath, and chalcopyrite containing gold has been worked at Cheticamp, Inverness County (Nova Scotia).

Although iron ores are widely distributed, and although Nova Scotia with her coal is the centre of large iron and steel industries, the production of iron ore is at present small. This is mainly due to the abundant supply of cheaply obtainable iron ores at Wabana, Newfoundland.

In the Nictaux-Torbrook district the ores are largely hematite, occurring in fossil beds, five to ten feet thick, in the Upper Silurian and Devonian. Near Londonderry iron ores occur in the Devonian slates and quartzites near the contact with various acid intrusive rocks. The ores occur in a fissured zone, in which is developed a complicated system of veins of ankerite, siderite, etc., with, in places, abundant magnetite, hematite and limonite. On the Nipisiquit River, twenty miles south of Bathurst, in New Brunswick, a large body of magnetite in the schistose quartz porphyry of early Palæozoic or pre-Cambrian age has recently been opened up and is now producing.

Chromite occurs in the serpentine of the Eastern Townships and in Gaspe, and is mined near Black Lake.

Manganese ores are found at a number of points in Nova Scotia and New Brunswick, more commonly associated with the Lower Carboniferous limestone, in the form of pyrolusite, psilomelane and manganite. These ores are often of exceptional purity. Bog ore or wad also occurs.

The tungsten-bearing mineral scheelite has been found in the Gold-bearing series at a number of localities in Halifax County (Nova Scotia), in quartz veins containing arsenopyrite, lithia-mica, tourmaline, etc. These veins resemble the gold veins of the same series in mode of occurrence, but do not seem to be themselves gold-bearing.

Auriferous stibnite (antimony ore) is mined at West Gore, Hants County (Nova Scotia), and native antimony and stibnite have been mined at Prince William (New Brunswick). Antimony minerals in considerable quantity occur at South Ham, Quebec.

Tin and lead have been found, but so far have not formed the basis of a mining industry.

The Laurentian Plateau

The Laurentian Plateau is underlain by rocks of pre-Cambrian age, which will collectively be referred to as the pre-Cambrian. Though a vast territory, over half of the whole Dominion, it is small in comparison with the ancient continent of Laurentia, which in pre-Cambrian times occupied much of the present North American continent, and over which the gradually encroaching Palæozoic and later seas laid down their sediments, thus concealing vast areas under the Palæozoic and later rocks.

The rocks of the pre-Cambrian show by their folding and metamorphism that the district was subject to mountain-building processes, but the mountainous character of the country had been effaced by erosion, and reduced to almost its present topography, long before the Cambrian. It is evident that great periods of geological time must have elapsed before the Cambrian, probably as great as all succeeding time.

On account of the vastness of the region occupied by the pre-Cambrian rocks—much of which has not as yet been carefully explored—of the complicated structures, and the high degree of metamorphism which makes correlation difficult, it is not possible to classify the rocks of the whole area or to give the full details of its geological history.

Wherever carefully studied, however, as in the Lake Superior district, about Lake Huron, about Cobalt, and in Eastern Ontario, a similar classification is possible, and the same relationships obtain ; so far as exploration has gone, nothing necessitating a modification of the classification has been observed. So it would appear that the geological classification of the Lake Superior district may be representative of the Laurentian Plateau as a whole. The region is chiefly occupied by large and small bodies of igneous rocks that at the time of their formation were deeply buried, but that now are partly exposed. These rocks are often typically granitic, but are more commonly gneissic. Though perhaps of widely different ages, they preserve a general resemblance over the whole Laurentian Plateau, and, so far as known, they form the foundation upon which all the other formations rest. Areally, they form by far the greater part of the whole plateau. From their nature, however, it is evident that they formed below the surface, and consequently were not the first rocks to occupy the region. Moreover, their contacts with the Keewatin rocks, to be spoken of below, are intrusive, showing that they are younger than these. Still, wherever it has been definitely established, they are the foundation upon which the older rocks rest. These rocks are grouped as the Laurentian.

The oldest recognized group of rocks of the pre-Cambrian is known as the Keewatin. The Keewatin is composed of an underlying series of volcanic greenstones, often schistose, followed by some sedimentary schists, limestones and ' Iron Formation.' The last, typical of several subdivisions of pre-Cambrian, consists of chert or jasper, finely interbanded with hematite or magnetite. At favourable points the iron may be concentrated into huge bodies. The basal volcanic lavas of the Keewatin must have been poured out over some older formation, but, as stated above, the Laurentian rocks underlie and penetrate the Keewatin on all sides, wherever relationships have been conclusively established. At one or two observed points, however, a granite underlying the Keewatin may be the older formation, and, in North-Western Ontario, Dr A. C. Lawson has described a series of schists that he has named Couchicing, and that he believes to be older

than and to underlie the Keewatin. East of Lake Timiskaming are some gneisses that from their position may also underlie and be older than the Keewatin.

The Keewatin rocks now occupy isolated, relatively narrow bands or areas, underlain and penetrated on all sides by granites and altered rocks, but from their wide distribution it is evident that they once formed a continuous, nearly horizontal series over very extensive areas.

The striking characteristics of the pre-Cambrian rocks so far described are the intensive deformation and metamorphism to which they have almost everywhere been subjected, which often renders the original nature difficult to decipher. These results would not be produced without the formation of mountain systems, and these disturbances no doubt account for great intrusions of granitic rocks.

This first great pre-Cambrian era was brought to a close by a prolonged period of erosion, during which a large part of the Keewatin was removed, exposing the underlying, once deeply buried granite masses, and reducing the mountainous district to a low hilly region like the present Laurentian Plateau.

For this first pre-Cambrian era there is no universally adopted name. Sir William Logan's 'Laurentian,' as defined by him, covered this period of geological time, and by the rules of nomenclature should be retained for it; but owing to Sir William's mistake in including in the succeeding Huronian some Keewatin greenstones, and to later geologists restricting the term Laurentian to the granites and gneisses, confusion was introduced in the use of this term. The term Archæan, which has been used to cover the whole pre-Cambrian, is now used by the majority of the United States geologists to designate this first pre-Cambrian era.

Following this era a gradual sinking of the Laurentian continent took place, and along the advancing shores the detrital matter carried down from the continent was deposited in a series of sedimentary beds, consisting of conglomerates, sandstones and slates, with in some places calcareous rocks. At Cobalt and in North-Western Quebec, in the basal conglomerate of the series that bears a striking physical resemblance to consolidated boulder clay, a few

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striated boulders have been found that have the form and appearance of glacial boulders. If this conglomerate proves to be a glacial deposit, it will throw an interesting light on the climatic conditions in these ancient geological times.

This series of sedimentary rocks forms the lowest division of the Huronian, and is known as the Lower Huronian. These Lower Huronian rocks still occupy much of the country, and normally lie nearly horizontal, filling the depressions and overlying the hills of the pre-Huronian surface. Except locally, they are unmetamorphosed, undisturbed, clearly recognizable sedimentaries, and this is a distinguishing characteristic. One would expect such rocks to be fossiliferous, and in 1911 Dr Lawson and Dr Trueman found forms that Dr Walcott has identified as fossils, in pre-Cambrian rocks of Steep Rock Lake, which are believed to be Huronian.

The Lower Huronian is thus very different from the Keewatin and Laurentian, and is separated from the latter by a great period of erosion, above mentioned, or, in technical language, by a great unconformity.

The Lower Huronian is followed, in places at least, by quartzite or arkose, separated from it by a minor unconformity. These latter beds belong to a second division of the Huronian, the Middle Huronian. With the sediments of these formations there are associated widely extending, sheet-like bodies of diabase of later date that sometimes cut, but more often rest upon, the sedimentary beds. While these Lower Huronian rocks are normally undisturbed, locally, as in North-Western Ontario, they may be highly disturbed and altered, particularly by great intrusions of granitic rocks of a later date. In this western district the Huronian appears to have suffered mountain building along with the Keewatin. Under such conditions its separation from the latter may be very difficult. This complex of Lower Huronian and Keewatin rocks was deeply eroded and planed to an undulating surface. This unconformity marks the close of the second recognized pre-Cambrian period.

Following this, with continued depression of the land surface, heavy deposits of sedimentary rocks, largely dark slates with Iron Formation, were laid down. This series, known

as the Upper Huronian or Animikie, occupies a large area west of Lake Superior, unconformably overlying the older rocks. These Animikie rocks are virtually unaltered and seemingly lie in a series of fault blocks with steep northern faces and southerly sloping tops. As is the case with respect to the Lower Huronian, extensive and very often thick sheets and sills of diabase are associated with these sediments.

Following the Animikie there were further erosion and earth movements—slight, however, in comparison with the earlier—followed by a period, the Keweenawan, during which red sandstones, conglomerates, shales and dolomites, well exposed on Lake Superior, west of Port Arthur, were laid down. During this period there was also heavy volcanic activity, and a thick series of lavas and tuffs, as exposed on Michipicoten Island, was deposited. With the sedimentary beds are sills of diabase ranging up to a thousand feet in thickness. These igneous rocks are distinctly younger than the sediments.

The Keweenawan is usually classed as pre-Cambrian, though it is held by some to be Cambrian, and to represent desert conditions.

At widely separated points over the vast Laurentian Plateau, wherever exploration has extended, groups of similar rocks are found. While it is not possible, with scant knowledge and great intervening distances, definitely to correlate these with the subdivisions of the pre-Cambrian recognized near the southern border of the plateau, where they have been studied in detail, still the resemblances to Laurentian, Keewatin, Lower and Upper Huronian and Keweenawan are so marked, and the relationships between the formations wherever noted are so similar to those obtaining in the south, that it is probable that the classification and history of the pre-Cambrian above outlined are continental in application. For example, on the east shore of Hudson Bay, in the central portion, and on the Atlantic coast of Ungava, are rocks that appear to be equivalents of the Upper Huronian ; on Great Bear and Great Slave Lakes are large areas of apparently identical rocks ; south of Lake Athabasca is a large district underlain by sandstone that appears to be Keweenawan, and north-

west of this is an area of volcanics, probably also of Keweenawan age. On the Coppermine River are rocks that appear to be identical with the copper-bearing Keweenawan rocks of the Keweenawan peninsula of Michigan. Keewatin-like rocks are also widespread. These resemblances are not only lithological, but stratigraphical as well.

While sedimentary and volcanic rocks are extensive and widely distributed, their volume as a whole is much less than that of the associated deep-seated or plutonic igneous rocks. These granitic rocks are often gneissic, and range in composition from a dominant granite type to very basic forms. Pegmatite dikes are an almost constant feature. In age too they vary. Over large areas they sometimes are all of approximately one period, post-Keewatin, post-Huronian, etc., as the case may be, but plutonics of various ages may be found in the same limited district. Pre-Huronian granites, however, appear to largely dominate. Highly alkaline rocks, such as nephaline syenites, are found as in Eastern Ontario, and bodies of anorthosite, sometimes ten thousand square miles in extent, are met with, from the Great Lakes to the Labrador coast.

Economic Minerals.—As the southern edge of the Laurentian Plateau is rough and rugged and broken by rivers and lakes, only a thin fringe of it has been opened up, and little more than this has been prospected, but it has proved to be remarkable for the great variety of useful and valuable minerals it contains, no less than for the richness or magnitude of some of the deposits. Silver, gold, platinum, nickel, cobalt, copper, iron, lead, zinc, arsenic, sulphur, talc, mica, apatite, feldspar, corundum, graphite, ornamental and building stones have all been mined.

The chief development of the mineral resources of the pre-Cambrian has not unnaturally been in the United States, into which two peninsulas from the Canadian Laurentian Plateau project. In these are the world-renowned Lake Superior copper and iron deposits. In Canada the nickel-copper deposits are the largest and richest nickel deposits known, supplying over half of the world's market, and the silver deposits of Cobalt are astonishingly rich, while the

corundum and feldspar deposits of Eastern Ontario are unique, and some of the mica deposits are probably unexcelled.

The economic deposits are principally found in the Keewatin and Huronian formations, though they not infrequently lie in igneous rocks, to which they seem to owe their origin. Thus the silver-cobalt-nickel-arsenic veins of Cobalt, with their rich assortment of minerals, occur in the Lower Huronian conglomerate, diabase, and to a limited extent in the Keewatin, near the contact of the diabase with these formations, and the large nickel-copper deposits of Sudbury occur at the lower basic edge of a sill-like body of norite.

The areas of mineral-producing formations are largely in the known southern portion of the vast pre-Cambrian province, one stretching from along the north shore of Lake Huron northeast to Lake Mistassini, a distance of seven hundred miles; a second, from Lake Superior to the Manitoba boundary; a third, occupying Eastern Ontario and South-Western Quebec.

The northern portion of the pre-Cambrian area is unprospected, but, as noted above, the same rocks occur as are found in the south, and most of the minerals have at least been noted by explorers; so that it is reasonable to suppose that, as has been the case in the south, prospecting will disclose valuable deposits in the north.

The Laurentian formation furnishes good building and some ornamental stones.

Labradorite, perthite and other feldspars are used for ornamental purposes. The pegmatites furnish feldspar of remarkable purity for industrial purposes, and also beautiful crystals of tourmaline, idocrase, apatite and zircon, etc. Garnets of gem quality have been recovered. Sodalite is produced as an ornamental stone, while the crystalline limestones furnish beautiful marbles.

The mode of occurrence of nickel and silver has been briefly alluded to. Gold has been found at a number of points along the southern border of the Laurentian Plateau in Ontario, its occurrences in Eastern Ontario, Porcupine, and North-Western Ontario being the most important. In Eastern Ontario it generally occurs in quartz veins near

the contact of intrusive granite. In Porcupine it occurs in quartz veins or networks of small veins in schistose porphyry or conglomerate. In Western Ontario it occurs in quartz, in Keewatin schists, or intrusive granites or gneisses.

Iron is one of the commonest and most characteristic substances in the pre-Cambrian. Three principal types of deposits occur :

(1) Bodies of magnetite, sometimes with associated pyrite, formed by contact metamorphism near the borders of intrusive granite. The ores of Eastern Ontario, Moose Mountain and Atikokan are representative of this type.

(2) Segregations of magnetite in basic igneous rocks. These masses may be of large dimensions, but are generally titaniferous. Eastern Ontario and Quebec furnish examples of this type.

(3) Secondary concentrations of hematite or magnetite in ' Iron Formation ' of the Keewatin or Huronian. These concentrations are sometimes exposed on the surface, and sometimes are revealed only by drilling below the banded jaspilite (chert and iron ore). The country about Lake Superior and Lake Timagimi affords examples of this type.

The iron ranges stretch across Northern Ontario from Rainy River to the eastern boundary. They also occur west of Lake Winnipeg ; on both sides of Hudson Bay, and at several points in Ungava ; about Great Bear and Great Slave Lakes, and, no doubt, at many points in the great unprospected north. Across the boundary-line the deposits of iron in these formations are the greatest in the world. In Canada the larger deposits are low grade, but better grade may yet be discovered, and, in any case, it is only a question of time till these lower-grade bodies become important from the industrial standpoint.

Muscovite, which occurs in pegmatite dikes, is mined to a limited extent. The main commercial mica of the region is, however, phlogopite, which occurs with apatite in veins that are analogous to ordinary mineral veins. Pyroxene and calcite form the gangue, and the wall rock is often pyroxenized for some distance on each side of the vein. The mica is frequently localized in bands or large sheets, and sometimes

its crystals attain enormous dimensions, one crystal in the Sydenham mine having a diameter of nine feet.

Corundum occurs disseminated through bands in various types of syenites, nephaline syenites and anorthosites over a zone seventy miles long in Eastern Ontario. The corundum is irregularly distributed through the ore-bearing bands in crystals of all sizes up to sixty pounds in weight.[1]

St Lawrence Lowlands

The geological features and history of the St Lawrence lowlands are simple. On the slowly sinking continent of Laurentia the Palæozoic seas encroached, depositing a succession of strata. The first member to be deposited on the old pre-Cambrian surface, which then had much the same topographical features as at present, is an arkose or sandstone. These sandstones are not all of one age, for the sinking of the land was slow. The oldest are of Potsdam—Upper Cambrian age ; others are Ordovician. Above the Potsdam lies the Beekmantown, an arenaceous dolomite followed by Chazy—a group of shales, sandstones and limestones ; and above this lie the shales and limestones of the Trenton. The Trenton is succeeded by the black shales of the Utica, and these by the shales, sandstones and limestones of the Lorraine.

The Ordovician strata occupy almost the whole of the eastern division of the lowlands, but, in Quebec, there are a few small areas of Silurian, and fossils of Devonian age have been found near Montreal, showing that these plains were once covered by many hundreds of feet of strata that have since been removed by denudation. These Palæozoic rocks lie undisturbed, except by minor faults, and by eight volcanic necks that pierce the strata at and near Montreal—the Monteregian Hills.

The second division of the lowlands, that bordering Lake Ontario to the Niagara escarpment, is also largely Ordovician. The basal member resting on the pre-Cambrian is generally Lowville (Birdseye). Going westward, successively higher

[1] Other occurrences of useful minerals in the pre-Cambrian are given in Appendix II.

horizons are encountered until, near the western boundary, the Ordovician is succeeded by the Silurian, Medina and Clinton.

The succeeding Niagara escarpment, of which the hard limestone resting on the softer shales has caused Niagara Falls, forms the eastern boundary of the third division of the lowlands. The Silurian forms a large part of this area. The Niagara is succeeded by the limestones and dolomites of the Guelph, and the latter by the Salina, which is composed of gypsum, salt, dolomite and shales, measures that were evidently formed in the slowly evaporating sea. Above the Salina is a bed of dolomite, which represents the highest Silurian present.

The Devonian, which succeeds, does not show its lowest beds, indicating that the region was for a time uplifted and eroded. The lowest Devonian is in places represented by Oriskany sandstone. This is followed by Onondaga limestone and Hamilton shales. West of the Hamilton, due to a low fold, the lower Devonian and finally the Silurian beds reappear.

The Palæozoic seas were not restricted to the limits of the lowlands as at present defined. Beyond the northern boundaries outliers of Palæozoic rocks are found, such as the Niagara area at the head of Lake Timiskaming, and the Ordovician beds at Lake St John, which prove that at least bays from the Palæozoic seas extended thus far.

Economic Minerals.—The economic materials of the lowlands, with the exception of oil, gas, salt, and in the western division gypsum, are largely of the nature of building materials. Clays of Glacial and post-Glacial origin are widespread and are used for brick. The Lorraine and Medina shales are utilized for brick, pressed brick and terra cotta. The raw materials for Portland cement are abundant and support large industries. The limestones of the various formations and some of the sandstones are used for building stone ; the limestones for lime and calcium carbide, while the dolomites are used in the manufacture of pulp.

Oil is produced in South-Western Ontario at Petrolea, Oil Springs, Tilbury, Leamington, etc. The wells are usually

situated on an anticlinal axis, and the oil obtained mainly from horizons of the Onondaga (Corniferous), but with some from the Guelph dolomite, and sparingly from the Trenton. Natural gas occurs with the oil, but the main gas-fields are in Welland, Haldimand and Essex Counties. In the two former counties the gas 'veins' are in the Clinton, Medina and Trenton. In the latter the Guelph is productive.

The salt and gypsum occur in the Salina formation. The gypsum is obtained from outcrops over the general north-western course of the formation between Niagara and Lake Huron.

The salt is obtained from a buried basin along the shores of Lake Huron in Essex, Lambton, Middlesex, Huron and Bruce Counties. The beds sometimes reach 250 feet in thickness, though generally with partings of shale. One well in Lambton penetrated 705 feet of salt in 805 feet of strata, between the depths of 1210 and 2015 feet below the surface. The salt is recovered from wells as natural brines, or artificial, formed by forcing fresh water down the wells to the salt beds.

The Interior Plain

The geological history of the great interior plain is also simple. Ever since early Palæozoic times it appears to have remained undisturbed, except for widespread but gradual movements of subsidence or elevation, which, although doubtless unequal as between its different parts, have not materially affected the regularity of the strata deposited. In the east, about the Winnipeg lakes, Ordovician rocks are found outcropping on the pre-Cambrian continental platform. Westward these are overlain by Silurian, in turn covered by Devonian. At the first prairie steppe the Palæozoic measures are covered by the much younger Cretaceous rocks that stretch westward to the Rockies and north-westward for twelve hundred miles. Overlying the Cretaceous beds are large remnants of Tertiary rocks.

While the rocks are undisturbed, showing only very broad, gentle flexures, movements of elevation and depression are shown to have occurred by gaps in the geological scale, and

by changes in the character of the sedimentation. The encroachment of the Palæozoic sea northward was gradual, for, while in Manitoba the Ordovician rests on the pre-Cambrian, in North-Western Saskatchewan and northward the Devonian rests directly upon the old continental platform ; the Cretaceous, which rests on the Devonian in Manitoba, overlaps it and rests directly on the Silurian in Eastern Saskatchewan. The Ordovician, consisting of sandstones, magnesian limestone, shales and limestone, appears to be Middle and Upper Ordovician ; the Silurian, consisting of magnesian limestones and dolomites, holds fossils of Niagara and Guelph age ; the Devonian is largely limestone and shale, and it is uncertain if lowest and highest Devonian formations are present. Some at least of these Palæozoic rocks probably extend under the Cretaceous cover to the Rockies, for there the Palæozoic strata reappear in the crumpled and broken strata of the Front range. About the close of the Devonian the plains were elevated above the sea, for the succeeding strata are Upper Cretaceous. Though there must have been erosion during this gap in sedimentation, it is marked by no structural unconformity. The first Upper Cretaceous formation is the Dakota, from which land plants have been recovered, indicating shallow- if not fresh-water deposition. During the next, or Colorado, period the plains were depressed, for a sea stretched from the Arctic to the Gulf of Mexico, in which were deposited dark shales, calcareous shales and shaly limestone. These marine conditions continued into the succeeding or Montana period, and in places, perhaps, held throughout the period ; but, over a wide region, from Edmonton to the international boundary, brackish and freshwater deposits with beds of lignite were formed, indicating shallow-water and fluctuating conditions. These non-marine beds, consisting of clays and sandstones with coal, known as the Belly River group, form an immense lens, thick at the centre, but thinning rapidly east and west. They are underlain by marine shales and sandstones, and overlain by similar rocks, which, however, pass into more arenaceous measures, indicating a return to shallow-water conditions.

The succeeding formation, the Laramie, consists of

brackish and freshwater deposits. The Laramie beds in Canada appear to have formed continuously, without break, during late Cretaceous and early Tertiary times, bridging the gap that elsewhere exists between these two systems. The lower portion of the Laramie—the Edmonton—consists largely of argillites with thick lignite seams. The upper portion, called the Paskapoo, is much more arenaceous.

By contrast, in the western edge of the plains deposition was more continuous, for the present site of the Rockies was a region of deposition in Triassic times; in Jurassic times the Fernie shales were laid down; and, again, in early Cretaceous times the richly coal-bearing Kootanie group of shales, sandstones and conglomerates was formed. At the close of the Laramie in early Tertiary times this western margin of the interior plain was subjected to stupendous earth movements, through which the strata were tilted, folded, and shoved upwards and eastwards over one another, sometimes for miles, thus forming the Rocky Mountains and the foothills. The marked effects of these disturbances disappear with the foothills, but the elevation of the plains to a land surface subject to erosion was probably a result. In Oligocene times the plains were again depressed, and beds of shales, sandstones and waterworn pebbles were laid down. These beds were once, in all likelihood, extensive, but since Oligocene times the plains have been subject to erosion, which has cut wide valleys in the foothills and has removed all but remnants, such as Cypress Hills, of the Oligocene deposits.

The uniformity in surface features of the plains, as of the St Lawrence lowlands, is principally due to the flat, undisturbed condition of the underlying strata, which, although denuded, wear down almost equally, and which have apparently never been elevated to great heights above the base level of erosion.

Economic Minerals.—The great agricultural stretches of the plains, underlain as they are by undisturbed sediments, are markedly deficient in metallic minerals. Mineral fuels, however, of great importance are found. Building materials, such as stones, cement materials, and clays, occur, and with increasing settlement are giving rise to large industries.

Recently fire-clays, suitable for higher-grade clay products, have been found in Wood Mountain. Gypsum is produced in Manitoba, and occurs on the Peace River ; salt also occurs there and in the Lower Athabasca. The rivers rising in the mountains contain fine gold, which has been dredged to a limited extent in the North Saskatchewan.

South of the 56th parallel it is estimated that not less than 60,000 square miles of the plains are underlain by lignite coals. The seams occur in two formations, the Belly River of Cretaceous age, and the Edmonton of the transitional Laramie period.

The Belly River formation outcrops over a great curving band 125 miles broad at the international boundary and stretching northward 300 miles, partly in Alberta and partly in Saskatchewan. Along the Saskatchewan the lignite outcrops in seams eighteen feet thick. The most extensive mining is carried on in the neighbourhood of Lethbridge and Taber, through shafts sunk to the coal horizons. The fuel, while a lignite, is high grade, and finds a market, for steaming and domestic purposes, over the plains, and even to some extent in British Columbia.

The fuel of the Edmonton formation is a lignite, which, while valuable for local purposes, does not bear long exposure or distant transportation. However, it is widely distributed. The Edmonton district is the chief mining centre of this horizon, but the outcrops supply settlers with fuel over extensive areas. Lignite is also mined in the Cypress Hills, and in Wood Mountain in Saskatchewan, and in Turtle Mountain in Manitoba.

An important natural gas-field has been developed in Alberta ; wells have been sunk in the district from Langevin and Medicine Hat to Bassano and Brooks. The chief producing centre is about Bow Island, where there are exceptionally large wells. A pipe line to supply Lethbridge and Calgary is now being laid. The gas occurs in the lower Niobrara and the Dakota. The limits of the fields have not been proved. A little gas was encountered in a well at Calgary, but the thickness of the overlying Belly River and other formations makes it very difficult to prospect along the line

on which lie McLeod, Calgary and Edmonton. Farther north, where the covering over the productive measures becomes thinner, a strongly flowing well was sunk at Pelican Rapids on the Athabasca. From this point northward down the Mackenzie River natural gas and oil seepages are encountered. Along the Athabasca River for a hundred miles about Fort McMurray the Dakota sandstone is exposed, saturated with tar, which forms about twelve per cent of the rock. This represents escaping oil that on exposure to the air has lost its lighter, more volatile constituents. Seepages of oil also occur in South-Western Alberta. The oil and gas possibilities of the basal Cretaceous measures where capped by upper members, but not so deeply as to be inaccessible for commercial purposes, are exceptionally promising.

Hudson Bay Basin and Arctic Archipelago

The portion of this physiographic province that forms an extension of the Laurentian Plateau is occupied by pre-Cambrian rocks. The lower western portion of Baffin Island and the islands west and north are floored with flat-lying or gently dipping Palæozoic measures, while portions of Ellesmere Island and the Sverdrup group are occupied by Triassic strata, sedimentary on the coast, but volcanic in the interior. Lignite-bearing Tertiary beds occupy low-lying areas at a number of points in the Arctic, as on Baffin and Ellesmere Islands.

The Palæozoic strata of the Arctic basin were evidently formed in a sea that, advancing southward, flooded the depressed area between the arms of the Laurentian Plateau. By mid-Ordovician times this sea seems to have extended to Manitoba, for the Galena-Trenton formation that characterizes the Arctic islands is also found on the southern shores of Hudson Bay and in Manitoba. It may have extended to the region of the Great Lakes, as it almost certainly did in Devonian times. The low fringe of coastal plain south of Hudson Bay and west and south of James Bay is occupied by Ordovician strata at the north, succeeded by Silurian to the east, and by Devonian west and south of James Bay.

Economic Minerals.—Little definite information concerning the mineral resources of this region has as yet been secured, though from the general geological conditions inferences may be drawn. Gold is reported from Wagner Inlet. Mica is mined on a small scale on the north side of Hudson Strait, and occurs in quantity on Cumberland Sound. Native copper has been brought from Baffin Island. Lignite occurs in the Tertiary of Baffin and Bylot Islands. Thin seams of a good quality of bituminous coal occur in the Carboniferous measures of the islands north of Lancaster Sound. Gypsum occurs in the Devonian area near James Bay.

The Cordilleran Region

The geological history of the Cordilleran region is complicated in the extreme. Sedimentation has been heavy, and has gone on in one area or another of the belt, with few interruptions, from pre-Cambrian times to the present. At different periods, and often over extensive areas, volcanic outpourings formed deep deposits, while at intervals, from the pre-Cambrian to at least mid-Tertiary, immense batholithic bodies of igneous rocks invaded and altered the strata. From very early geological times, during successive epochs, the region appears to have undergone great mountain-building movements that folded and faulted the strata, elevating them into mountains to be subjected to intense erosion. The igneous activity was no doubt a result of these great upheavals. But in the main the effect was to give rise to elevated tracts whose axes followed a general north-westerly course, like the shore-line and mountain ranges of the present. The basins of deposition were also parallel to these, so that the same general assemblage of formations may be traced for long distances in a north-west direction, while, in sections across the mountains, a succession of formations is encountered. Much more work will be required in this complicated belt before its geological history can be fully outlined. The Rockies, formed at the close of Laramie times at the western edge of the plains, consist almost wholly of sedimentary rocks, though the soft Cretaceous measures have been largely

removed by erosion, except in infolded or infaulted basins, and the main mass consists of the more resistant lower formations of the Palæozoic and older rocks. The sections exposed by the mountain-building processes show that sedimentation began much earlier and was more continuous on the old western border of the Medial Plain than along its eastern edge against the Laurentian Plateau. There is a great thickness of pre-Cambrian sediments extending into thick Cambrian deposits. Ordovician, Silurian, Devonian and Carboniferous strata occur, while Jurassic rocks (the Fernie shales) and Lower Cretaceous (the thick coal-bearing Kootanie formation) are found in the infolded basins, in addition to the Upper Cretaceous of the present plains. The structure of the Rockies is that of folds overturned to the east, fractured in the direction of the axis, with the western limb overthrust, sometimes for miles, over the measures of the eastern limb. The soft, overlying Cretaceous rocks have been eroded from the surface of the elevated western limb, leaving the hard, Palæozoic rocks that form the ranges with the softer Cretaceous occupying the basins between.

Between the Rockies and Coast Range the country is underlain by pre-Cambrian, Palæozoic and early Mesozoic measures. Much of the strata is of volcanic origin. They are heavily folded and faulted and incased by granitic bodies, frequently of great size, intruded chiefly during Mesozoic and Tertiary times. Over large areas later Mesozoic and Tertiary strata are spread out.

The Coast Range is essentially an enormous batholith of granitic rocks of probably Jurassic age that penetrate Triassic and older rocks such as form Vancouver Island.

The Vancouver range consists of Palæozoic and early Mesozoic rocks, with a large amount of volcanic material, invaded and metamorphosed by intrusive granitic rocks, with basins of Cretaceous and Tertiary measures.

Pre-Cambrian measures of great thickness have been mentioned as occurring in the Rockies and Selkirks. Somewhat similar rocks occur at the head of Peace River. Formations that closely resemble these are widely developed in the Yukon, but these may be later, possibly Ordovician.

The thick Cambrian measures seem to extend throughout the entire length of the Rockies.

Ordovician strata have been found at wide intervals along the Rockies, as far north as the Mackenzie Mountains, and beds of this age are thought to be recognized in the Yukon, and may also occur in the gold ranges. Silurian rocks have been found on the main line of the Canadian Pacific in the Rockies. Devonian limestones and shales seem to occur everywhere throughout the length of the Rockies, and have been recognized on Vancouver Island.

Carboniferous limestones and shales overlie the Devonian in the Rockies, and, with possibly some underlying Devonian beds, are extensively developed in Central British Columbia and the Yukon. The beds sometimes consist largely of sediments, but more commonly are of volcanic origin. In the interior of British Columbia, on the Pacific coast and on Vancouver Island, the Carboniferous rocks are succeeded by an immense thickness of Triassic volcanic material. Everywhere these associated Triassic and Carboniferous measures are closely folded. Possibly in many districts the Carboniferous volcanoes continued their activity into Triassic times, and in a few localities the Triassic volcanoes seem to have remained active into Jurassic times. With this exception deposition seems to have been interrupted until late Jurassic, during which interval the Triassic and older measures west of the Rockies were folded, faulted, and probably elevated into mountains. About the same time the one thousand mile long Coast Range batholith was intruded. The granitic rocks composing this range vary from acid granite to gabbros.

Before the close of the Jurassic deposition recommenced and continued, over increasing areas, in the encroaching Cretaceous seas. The Fernie shales and Kootanie coal measures of the Rockies have already been mentioned. In Queen Charlotte Islands on the folded Triassic rocks, Upper Jurassic and Lower Cretaceous strata, holding coal seams towards the top of the section, were formed, with, however, an intermediate volcanic group. Lower Cretaceous rocks were also deposited in Southern British Columbia, east of the Fraser. About the head-waters of the Skeena and Nass Rivers

a thick volcanic series of Jurassic or early Cretaceous age is overlain by a series of sandstones and shales that are coal-bearing, and somewhat similar measures are found in Northern British Columbia and Southern Yukon.

At the close of Lower Cretaceous times the central portion of the Cordilleran region appears to have been subjected to mountain-building forces, and erosion. Granites and allied rocks were intruded into the strata, further deforming and metamorphosing the neighbouring rocks. What is now the Pacific coast and the Vancouver range, however, was still partially under conditions of deposition, for the Lower Cretaceous of Queen Charlotte Islands is followed by a thick series of sandstones and shales, and on Vancouver Island and the adjacent islands an important series of coal-bearing rocks was laid down. Rocks referable to the Laramie are found in the Yukon and in the vicinity of the Fraser River delta. At the close of the Laramie in early Tertiary times the Rocky Mountains were formed, as mentioned above, and the region as a whole was elevated and subjected to erosion, during which much of the present-day topography was outlined. During the Oligocene, freshwater deposits of shales, sandstones and conglomerates, with, in places, important beds of lignite, were deposited in valleys and lake basins over much of southern Central British Columbia. This was followed by a period of great volcanic activity with the formation of beds of tuffs and great flows of lava, sometimes five thousand feet thick. These flows covered an immense area in the central portion of the district extending from the head-waters of the Skeena down to and far beyond the international boundary-line. Though some of the volcanoes remained active during Pliocene and until very recent times, erosion has been in the main the important geological process. Regional uplifts and depressions have occurred. In places Tertiary strata have been folded, and in certain districts of Southern British Columbia large bodies of plutonic rocks have been intruded. Mountain-building processes are still likely to recur in the Cordilleran region.

Economic Minerals.—The Cordilleran region is, as might be expected from its geological history, a great mineral-bearing

belt. In Mexico and the Western States its richness has been amply established, and in Alaska and in Canada it is maintaining this characteristic. Only in the Rockies, where the sedimentary rocks of the plains have been recently uplifted and where igneous intrusions are practically absent, and in areas such as some in the interior, where recent strata cover the older mineralized rocks, are deposits of metallic minerals lacking, and in most of these districts the coal resources are quite as valuable.

Only a small portion of the region has been prospected with definite results, so that an account of its resources cannot be attempted but enough is known to justify sanguine expectations, and to render difficult a concise statement of the modes of occurrences of the minerals.

The Rockies and adjoining foothills are, as has been mentioned, pre-eminently coal-bearing. Rich coal basins have been delimited from the boundary-line to beyond Yellowhead Pass, and coal is known to continue on northward. Some clay ironstones are found in these strata and, in the Livingston range, beds of iron that appear to be indurated iron sands; some argentiferous galena occurs at Field, near one of the few igneous intrusions.

The Selkirk Mountains are characterized by silver-lead and gold occurrences. The Columbia Mountains and the Interior Plateaus are gold-copper bearing, and the newer rocks, at intervals up to and in the Yukon, are coal-bearing. The Coast Range batholith has not been found mineral-bearing, but along its entire extent the intruded strata on either side, wherever favourable for mineral deposition, are characterized by gold-copper and sometimes silver-lead occurrences, and in places by iron ores. The Cretaceous rocks of Vancouver Island and Queen Charlotte are coal-bearing. Placer-gold districts, sometimes of extraordinary richness, have been found from the Klondike in the north to the international boundary-line, particularly where the gravels of the old Tertiary rivers have escaped erosion, or have been captured by the present-day streams.

Placer gold in the Cariboo district first called attention to British Columbia. The rich ground was found where the

present streams cut through old Tertiary channels. Following the Cariboo the Cassiar field was discovered. Since then Dease Lake, Omenica, Big Bend of the Columbia, Wild Horse Creek, Granite Creek, Atlin and Klondike have been the better known placer fields. The latter, which has produced approximately $250,000,000, is situated in an unglaciated region, and the old weathered Tertiary gravels, 'the White Channel gravels,' and present streams, where they have trenches through the White Channel deposits, are still being worked on a large scale.

While the bulk of the gold obtained from the Cordillera has been placer, in latter years lode gold has been of equal importance. The greater part of the lode gold is derived from the gold-copper deposits of Rossland, the boundary district, and the coast; but in the Nelson district, and at Hedley, deposits are worked for gold alone, and some of the silver-lead deposits, as those of the Lardeau, are gold-bearing. The gold veins are usually quartz veins carrying pyrite, chalcopyrite, galena, and zincblende, sometimes tetrahedrite and silver minerals, and gold, both free and confined.

The nickel-plate deposit at Hedley is peculiar. It is a contact metamorphic deposit in sediments, cut by sheet-like bodies of dioritic rocks that have altered the sedimentaries to garnet, epidote, calcite, etc., mineralized by mispickel and only relatively small amounts of iron and copper sulphides, hematite, etc.

The commonest types of copper-gold deposit—to which belong the boundary district, and most of the Interior Plateau deposits, and most of those situated near the Coast Range, both along the island contact as at White Horse, Yukon, and on the coast—are contact metamorphic deposits, in which garnet, hornblende, epidote, etc., are developed in the country rock, with magnetite, often forming bodies large enough to constitute an iron ore, hematite, and iron-copper sulphides, of which chalcopyrite is the commonest, though bornite occurs in this way on Texada Island. Sometimes pyrrhotite largely takes the place of iron oxide.

The gold-copper deposits of Rossland and some other points form a type of deposit transitional between contact

metamorphic deposits and replacement vein deposits. The ore consists largely of pyrrhotite and chalcopyrite with small amounts of magnetite.

Practically all the copper ores mined carry some gold values. Up to the present copper mining has been restricted to Southern British Columbia—Rossland, the boundary and the coast districts of Howe Sound, Vancouver Island, Texada Island, etc.—but now some attention is being paid to the north, and promising deposits are being opened up on Observatory Inlet.

Almost all the lead produced in Canada comes from mines situated in the Selkirk system. The largest producer has been the St Eugene near Moyie, East Kootenay. The ore occurs in two parallel fissures connected by cross veins in the pre-Cambrian quartzite. The largest ore bodies are found where a cross vein enters a main vein. The ore consists of argentiferous galena and zincblende with some pyrite. The Sullivan and North Star mines also have large shoots. These East Kootenay deposits resemble those of the Cœur d'Alène to the south.

The Slocan district between Kootenay and Slocan Lakes is another producer. The deposits occur in fissure veins having gangues of quartz, calcite and siderite. The ores are made up of argentiferous galena, blende, tetrahedrite, copper and iron pyrites, arsenopyrite, argentite, ruby silver, native silver, and gold. The shoots as a rule are not so large as those of East Kootenay, but the veins are more numerous, and in silver content much higher. Silver-lead veins also occur south of Nelson, as on Sheep Creek and the north fork of the Salmon River. Development work has been done on silver-lead deposits on the Skeena River near Hazelton and on Windy Arm in the Yukon.

Platinum occurs with gold in many of the placer districts, and has been produced in limited quantity in the Tulameen district. Native platinum has also been found in this district in a serpentinized basic igneous rock, accompanied by microscopic diamonds.

Mercury has been found in the form of cinnabar, in irregular veins of calcite and quartz that traverse Tertiary

volcanics and also impregnating sandstone on Copper Creek, Kamloops Lake. It has been noted in hematite, east of Kootenay Lake, and quicksilver is reported from Field.

While iron ores occur at many points, notably on the coast, no iron industry has so far been developed.

Coal is one of the most important mineral products of the Cordillera. In its occurrences it is well distributed throughout the entire length of the belt in Canada. The coals are mainly bituminous, and by far the greater number are Cretaceous in age. The Carboniferous region in the West is not coal-bearing, for, while in the eastern half of the continent conditions in Carboniferous times favoured coal formation, in the western half of the continent the Carboniferous was a period of deep marine or volcanic conditions, and the favourable shallow-water conditions do not begin until the Cretaceous period.

Coals of Tertiary age, some of excellent quality, though most of them are lignites, occur at a number of points, as in the Nicola Valley, Princeton, and in the Yukon.

While coal is known at many points, and no doubt occurs in the North in numerous basins in the great central region between the Coast Range and the Rockies, the main production is from the coal measures of Vancouver Island, and the Rockies and foothills in the south-eastern portion of the Cordilleran belt. On Vancouver Island the productive measures occur in the upper part of the Cretaceous, and are worked near Nanaimo and Comox. In the Rockies and foothills there are three coal horizons. The lowest and most important is the Kootanie formation of the Lower Cretaceous, in which are the Crow's Nest, Blairmore-Frank and Cascade basins. A second group of the productive measures is the Belly River, situated towards the top of the Upper Cretaceous column; while the third is the Edmonton of Laramie age. The two latter, as was noted above, are also coal-producing on the plains. The basins within the mountains are usually Kootanie formation, while those of the foothills are generally Belly River or Edmonton. The amount of coal in some of the basins is enormous. The southern Elk River basin, for example, has twenty-two workable seams aggregating 216 feet

in thickness. The basins have been traced as far as the Athabasca River, but are known to continue northward.

While the coals are mostly bituminous, at a few points they become anthracitic. On the main line of the Canadian Pacific Railway at Bankhead, the only mine at present producing anthracite in Canada, and at Anthracite, in the Cascade basin, the coal is of this quality. Anthracite also occurs locally in Queen Charlotte Island. At the head-waters of the Skeena River, the Ground Hog district, at present being prospected, contains anthracitic coal.

Excellent stones for building purposes are found throughout the region. Marble of high quality is produced near Lardo and on the coast. Cement materials occur at various points and support industries at the eastern edge of the Rockies and on Vancouver Island.

Clays suitable for brick-making occur in many of the valleys, and at Clayburn, near Mission, a good fire-clay is being utilized.[1]

V

GLACIAL AND RECENT GEOLOGICAL HISTORY

IN the above pages there has been given a summary of the geological history of Canada as recorded in the consolidated rocks. In the unconsolidated surface deposits is a history of comparatively recent events that, although merely superficial, have profoundly affected the country as an abode for man. At the close of the Tertiary period erosion had produced the main topographical forms of to-day, and the surface was largely covered by residual soil, the weathered remnant of the rotted surface rock. It is not improbable that the elevation of the continent was greater than at present, for the lower portions of many of the main drainage channels are now flooded, with their floor many hundreds—in cases several thousands—of feet below sea-level,—the base level of erosion. These could be the result of causes other

[1] See Appendix III.

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than the uplift of the continent as a whole, but the latter hypothesis also helps to account for the Glacial period which, after the close of the Tertiary, seized the northern half of the continent in its icy grasp. Virtually, the whole of the land area was covered by glacial ice, which extended south into the United States, in the west to the 48th parallel, in the region of the Great Lakes to about the 37th. The Arctic islands, however, do not appear to have supported glaciers any larger than those now found on portions of Baffin and Ellesmere Islands ; the northern portion of the Yukon, as the Klondike region, and the greater part of Alaska were not glaciated at all, nor were the Magdalen Islands in the Gulf of St Lawrence. Moreover, the glaciation was the result, not of one, but of several large ice-sheets which reached their respective maximum thicknesses and extents at different times, if indeed they existed at the same time. Further, there was not a general advance, followed by a retreat and disappearance of the ice-sheet, but, instead, a number of invasions and retreats. Six indeed have been distinguished by the unconformable superposition of one sheet of drift deposited by the ice upon the weathered surface of an older, from which in places it is separated by beds of sand, gravel, etc., containing plant remains. In some cases the plant remains of such interglacial deposits, as those found at Toronto, are of species which grow only in regions that are warmer than the district about Toronto is at the present day.

Much still remains to be learned of Glacial and succeeding times, but so far three main glaciers have been recognized, known as the Cordilleran, the Keewatin and the Labradorian. The first of these to attain its maximum development was the Cordilleran, which had its névé between latitudes 55° and 59°, and, flowing north-west and south-east from here, covered the whole of the Cordilleran area between latitudes 63° and 48°. Tongues from it, flowing down the main transverse valleys, reached the sea and spread out on to the plains. The thickness of the ice was very great, for about the 50th parallel an erratic boulder has been found on a mountain top over nine thousand feet high, showing that this mountain was overridden by the ice. The present

glaciers of the Cordillera may be considered remnants of the Cordilleran glacier, left on the higher points where glacial conditions still obtain.

The destructive action of the ice in the mountains was enormous. Not only were the surface soil and weathered rock surfaces removed, but the mountains were rounded off and the major valleys were trenched to a depth of hundreds of feet, leaving tributary valleys hanging a thousand feet above the present valley floor, in which, in places, still deeper trenches are gouged, like the rock basin occupied by Slocan Lake, whose silted bed is still nine hundred feet below the general level of the valley floor.

Glacial drift, consisting of erratic boulders and boulder clay, was deposited over the invaded districts, and, while the boulder clay in the Cordilleran belt is now largely removed by erosion, in protected valleys it still remains undisturbed or re-sorted in deposits of silt, sand and gravel.

On the plains the boulder clays and gravels of the Cordilleran ice-sheet were overlaid by subsequent deposits left by the Keewatin glacier, whose maximum development succeeded that of the Cordilleran. This glacier had its névé north-west of Hudson Bay, and from this centre its ice flowed out in all directions, even northward. South-westward it reached as far as the foothills, covering ground that had previously been occupied by ice tongues of the Cordilleran ice-sheet.

The Keewatin glacier (and the same holds true of the Labradorian glacier) removed and redistributed the old residual soil and cut away the weathered surfaces of the underlying rocks, leaving fresh grooved and striated rock surfaces, but apparently did not carve deeply into the solid rock as did the Cordilleran glacier in the mountains. Over its névé the erosive power of the ice was of course practically nothing, and towards the limits of the ice, where it was loaded with débris, its power to erode was gradually lost, and sufficed only to transport its load until finally it was reduced to dropping it. As it retreated the relative areas of these processes were correspondingly shifted. The Keewatin glacier left, over the whole of the interior continental plain, boulder clays and

erratic boulders with silts, sands and gravels. The remarkable Missouri Coteau appears to be a drift monument of the Glacial period.

The maximum development of the Keewatin glacier was followed by that of the Labradorian, whose névé was in the centre of Ungava, from which the ice flowed out in all directions—to the west and south-westward, covering much territory that had already been traversed by the Keewatin glacier. Successive stages in the position of the ice are shown by moraines, which are a characteristic feature of some parts of Southern Ontario ; and the boulder clays, eskers, drumlins, and striated rock surfaces bear further evidence of the former presence of this ice-sheet.

It is doubtful if the Appalachian region was covered by the Labradorian glacier. It appears to have been subjected to the action of a local glacier called the Appalachian, and Nova Scotia may have had a small glacier of its own.

The glaciers not only profoundly modified the soil conditions, but they had a marked effect upon the drainage. Great deposits of débris filled up the old channels and depressions and ponded back the waters. New basins were gouged out. The result was the development of new watercourses marked by lakes, falls and rapids, making of Canada a country of lakes and water-powers.

Following or during the Glacial period there was a widespread depression of the country. In Central and Eastern Canada the general southward slope of the land was changed to a northward one, with the consequence that the northward retreating ice front formed a dam, impounding the waters formed by its melting, and forming temporary lakes, some of immense area. Such a one was Lake Agassiz, which occupied the first prairie level in Manitoba, and of which the Winnipeg lakes are remnants. It had an area of about a hundred thousand square miles. A succession of glacial lakes occupied the Great Lakes region, at first draining southwards, but, with the retreat of the ice tongue, finding successively lower outlets to the eastward. When the ice left the St Lawrence valley, the waters of the gulf covered the St Lawrence lowlands, extending to above Ottawa, and at least as far as Kingston.

On the plains and in the Cordilleran belt great areas were also covered by water. At the Porcupine Hills these waters reached 5300 feet above sea-level, and in British Columbia waters reached about the same elevation. Whether these western waters formed one body, due to a depression of 5300 feet that allowed the ingress of the sea, or whether they were local bodies of water due to temporary causes that happened to reach concordant levels, has not yet been established.

These bodies of water, though transient, were important, as in them the glacial débris was re-sorted and laid down in beds of gravels, sands, silts and clays, which over these areas form the present-day soil. With the retreat of the ice the glacial lakes disappeared. A rise of the eastern portion of Canada caused the Gulf of St Lawrence to retreat to its present position. This uplift has not been even, as the formerly level shore-lines are now found to be warped, but it in general amounted to several hundred feet ; near Ottawa the highest marine shore-line is over 700 feet ; at Richmond, Quebec, it is nearly 900 ; and in Gaspe, 230 feet. On the Labrador coast and along Hudson Strait marine shore-lines are found several hundred feet above the sea.

As a result of these conditions the whole of the eastern division of the St Lawrence lowlands is floored with deposits of boulder clay, marine clay, named Leda, and sand, called Saxicava sand. These also extend round the coastal regions of the Maritime Provinces, and similar deposits have been found on the coastal plain of Hudson Bay. In the central and western portions of the St Lawrence lowlands in Ontario the boulder clays have also been covered by finer, newer clays. In Northern Ontario, on both sides of the Hudson Bay divide, are finely interbanded sands and clays, known as Algoma sand. The limits of the waters in which these were laid down have not yet been determined. The deposits of Lake Agassiz in the Red River basin are famous for their fertility. On the plains and in British Columbia, silts, sands and gravels are found that are to be explained by the conditions that prevailed at the close of the Ice Age. That the elevation of the eastern portion of Canada northwards is still in progress

is shown by the slow but distinct tilting of the Great Lakes basins, causing a flooding of the waters on the southern shores.

VI

SOILS

AS a result of the events during glacial and recent times Canada is possessed of vast areas of soil of singular fertility. Residual soils are dependent upon the nature of the underlying rock, and have usually lost, in the slow process of weathering, at least a large percentage of the soluble materials. What with these losses, and with a possible deficiency in the parent rock, such soils may be lacking in important elements of plant food, even to the extent of being barren. In Canada residual soils are virtually absent, practically all being glacial drift, or the products of glacial drift re-sorted by water. The drift is simply the fresh rock ground to varying degrees of fineness. While it usually consists to a large extent of material from the rock on which it rests, or rocks in the near vicinity, and consequently varies in its nature from place to place, it also contains the ground products of rocks from a distance, even hundreds of miles. The three main glaciers originated in and passed over great areas of igneous rocks that contain potash, phosphates and other materials used by plants. The drift is therefore a composite from many different kinds of rocks of varying composition, and practically everywhere contains ample, if not unusual, quantities of all the elements of plant food. Moreover, its physical condition is, as a rule, admirably adapted to the requirements of plants. As much of it is reduced to a finely divided state, it decomposes rapidly, releasing fresh food to replace that removed by vegetable growth or by solution in the ground waters, so that its fertility, without artificial aid, may be long retained. The weathered surface is often mixed with vegetable mould, as is notably the case in Manitoba.

From what has just been said it will be evident that the clays and sands formed by the water-sorting of glacial drift

are not ordinary clays and sands, the insoluble residues from decomposed rock, but rock-flour and rock-meal. Consequently the whole of the drift-covered area is fertile and suitable for cultivation, except locally where an old moraine, esker, beach, or river channel occurs that may be too bouldery, gravelly or sandy. But such features are limited in extent.

In the Appalachian region, owing to its moderate glaciation, the underlying rock has a more marked effect on the character of the soil than in most parts of the Dominion. The valleys and lower ground of the region afford excellent arable land, and even some of the hills, as the Cobequid Mountains, are cultivable almost to their summits. Prince Edward Island is agricultural throughout. The beautiful Annapolis valley, the garden of Nova Scotia, may be particularly noted. The St Lawrence lowlands may be considered as an unbroken stretch of fertile arable land. The Laurentian Plateau has as yet contributed little to the fertile areas of the country, in proportion to its extent, but in the aggregate it contains a great amount of land that will in time come under cultivation. The southern border in Ontario and Quebec is rough and rocky, and unpromising from an agricultural standpoint, though the valleys and dales are often soil-covered, and, when cleared, the relative amount of such land is somewhat surprising. In Northern Quebec and Ontario, just north of the height of land, is a very extensive area of cultivable land known as the ' Clay Belt.' This is now being opened up by the National Transcontinental and other railways. Near the Manitoba boundary is another important area, and north and north-west of Lake Winnipeg to about half-way to Hudson Bay good land is found, much of it deposited in glacial Lake Agassiz, like that of the Red River valley.

The continental plain is almost wholly arable and wonderfully fertile. Some of the soil is unsorted drift, but much has been re-sorted in the lakes and waters that marked the close of the Glacial period. In the south and west the climate is in places subarid, so that, while the soil is excellent, it is more suited to pasturage than to ordinary methods of farming. Large areas, however, are now being irrigated, and ' dry farming ' is also proving successful.

In the Cordilleran region farming land is confined, with certain exceptions, to the valleys and tracts below 3000 feet. At Rossland, near the 49th parallel, even fruit-growing is conducted at 3500 feet above sea-level; but northward the elevation of agricultural land diminishes by reason of summer frosts at the higher elevations. While such areas are rather small in comparison with that of the region as a whole, in the aggregate the area of cultivable land is large. The soil is usually re-sorted glacial material, generally of the nature of silt of great fertility. Even soil that appears merely sand or gravel has been found excellent for orchards. In the southern valleys of the interior irrigation is necessary for the growth of crops. The grassy mountain slopes are excellent for pasturage. The volcanic lavas, which covered a large section of the interior, have furnished particularly excellent soils.

VII

CLIMATE

IN a country as extensive as Canada, made up of such diversified geographical provinces, and stretching from latitude 42° in the south to latitude 83° in the north, it is natural to find a great range of climatic conditions. The climate varies from the mild conditions of southern Vancouver Island and about the Gulf of Georgia, not unlike that of the south of England, to Arctic severity in the Northern Archipelago. It varies greatly from one geographical province to another, so that Ontario can boast of as many climates as almost any other country in the world. It varies tremendously in a single geographical province, like the Cordilleran, where, by ascending the mountains, the traveller may rapidly pass from a winterless region to a zone of perpetual ice. The most marked differences are in the winter climates, and in the amount of precipitation. The summers, particularly as regards the day temperatures, are remarkably similar, even to the Far North, and are characterized by a high percentage of sunshine and a relatively high day-temperature

and cool nights. In the length of this season, also, there are not the differences that might at first be expected, the longer winters of the colder regions passing rapidly into summer at the expense of spring. Indeed, in places, one might almost say there were but two seasons, winter and summer. Speaking generally, it may be said that the winters are cold, but bright and bracing, the summers clear and warm, the autumns sunny, but with a cold exhilarating air.

Canada is remarkably fortunate in her climate. For the percentage of sunshine it may be compared with that of Southern Europe. Where the winters are long, the summers come rapidly, and the long days of sunshine promote wonderfully rapid growth. Where the annual precipitation is light, it falls when it will do most to promote growth, and not when it will interfere with harvesting. Where the annual precipitation is heavy, it falls at a time when it will least interfere with agriculture. Where early frosts occur, it is where the dryness of the air renders them harmless. Where the temperature is high in summer, the air is dry and breezes constant, and the nights cool, so that it is not sultry or enervating. Where the temperatures are very low in winter, the air is still and dry, so that the cold is not penetrating, and the ground has a blanket of snow, which prevents damage to vegetation.

The following facts regarding climate should be borne in mind in considering the meteorological reports : that temperature, as regards its effect on man, is not so much a matter of the thermometer as it is a matter of the hygroscope and anemometer ; and as regards agriculture, not a matter of the annual but of the summer temperature ; that it is not the amount of precipitation, but the times at which it falls and the proportion that enters the soil that are important.

The summer isotherm of 50° F. crosses the mouth of the Mackenzie River, runs east of Great Bear Lake, and south-east to York Factory at the mouth of the Nelson ; thence across the bay to the Nastapoka River ; thence east to the Strait of Belle Isle.

The summer isotherm of 55° enters from the Pacific coast near Skagway, and runs north-west of the Yukon River to

beyond the 141st meridian; thence eastward, a little north of the Arctic circle, across the Mackenzie River; and then runs south-east across Great Bear Lake, the centre of Great Slave Lake, Reindeer Lake, South Indian Lake, to a point below the 50th parallel about half-way between Winnipeg and Port Arthur. From this point it turns north-east to Cape Henrietta Maria at the extreme north-west corner of James Bay, across James Bay, and thence in an almost straight line to Anticosti. An oval area of the northern portion of the central plateaus of British Columbia and a portion of the Rockies have a lower summer temperature; but almost the whole of the Cordilleran region, including the Yukon, the whole of the continental plain, a strip of the south-western, and all the southern portion of the Laurentian Plateau have a summer isotherm of 55° or higher.

The summer isotherm of 60° is more irregular. It runs through the centre of Vancouver Island for about two-thirds of its length; thence crosses to the mainland and runs south-east to about Yale on the Fraser; thence north along the Fraser to about the 52nd parallel; and thence south-west, crossing the international boundary near the great trench of the Columbia. It recrosses into Canada along the eastern foot of the Rockies, and takes a sinuous but north-easterly course to the North Saskatchewan River; thence south-west, from about Saskatoon to about the point where the Manitoba boundary crosses the 50th parallel; thence north to beyond the 54th parallel; thence south-east to Lake Winnipeg, down the lake to Lake of the Woods; thence across the boundary-line. It recrosses into Canada in Lake Superior, running from a little south of Michipicoten north-eastward to Lake Mistassini; thence south-eastward, crossing the St Lawrence below Quebec; thence a little south of the international boundary and north-eastward to Chaleur Bay. Thus the southern portion of the Cordilleran region, the southern portion of the plains, the southern portion of the Laurentian Plateau, the entire St Lawrence lowlands and the Maritime Provinces have a summer isotherm of 60° or higher.

The 65° isotherm runs from Goderich on Lake Huron a little north of east, passing north of Ottawa, to near Three

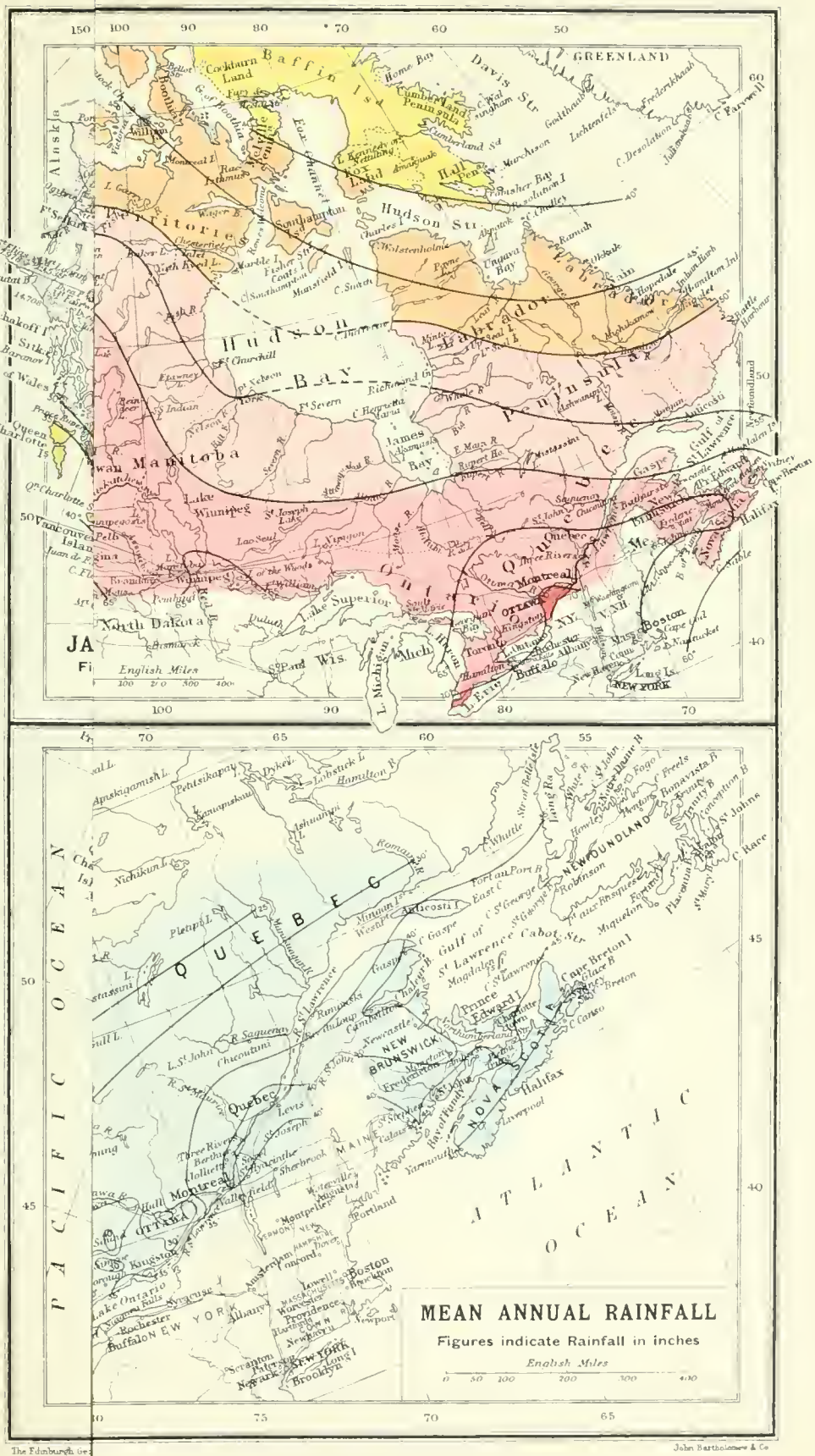
Rivers on the St Lawrence; thence running south across the international boundary-line.

The 70° isotherm crosses the extreme southern point of Ontario.

The climate of the Pacific coast is mild and equable. Situated at the base of the Coast Range, where the moisture-laden winds from the Pacific must rise to cross the mountains, and thus become mechanically chilled and unable to retain their load of water vapour, it naturally has a very heavy precipitation, generally exceeding a hundred inches, but varying greatly from point to point, according to distance from the mountains. From May to September is usually comparatively dry. The interior plateau has a very different climate. The winds from the Pacific have been deprived of moisture on the western slope of the Coast Range, and are mechanically heated descending to the plateau region, and hence rendered susceptible of absorbing moisture. The climate is consequently dry. The annual range of temperature is great, as is also the daily range in summer. Chinook winds — hot, dry winds — prevail. In crossing the high Selkirks the winds are deprived of moisture in the same manner as in crossing the Coast Range. The precipitation is, in consequence, heavy, particularly the snowfall, which on some of the mountains is almost incredibly great. The Rockies are drier, and on the eastern slopes somewhat resemble the interior plateau.

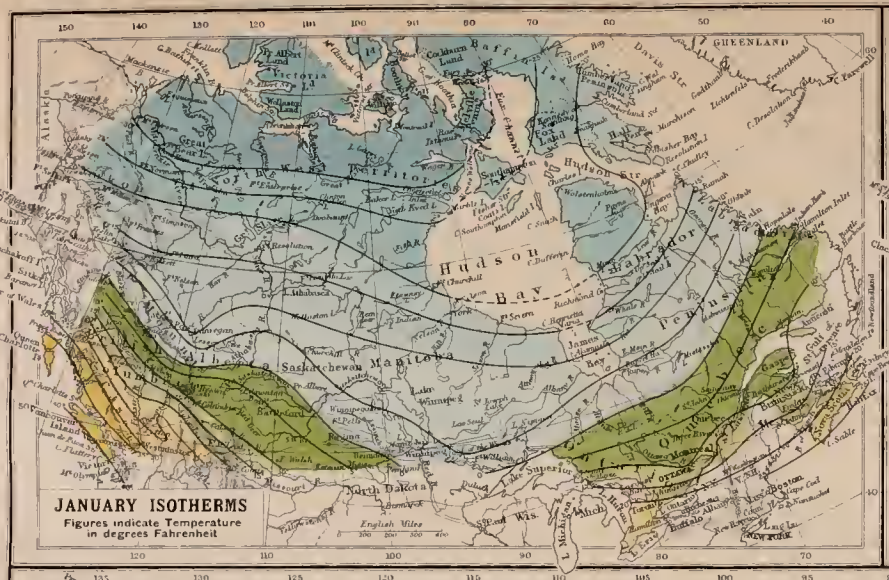
The climates of districts in the northern Cordilleran region do not differ markedly from those of areas in the south similarly situated with respect to the great mountain systems, except that the winter temperatures become gradually lower. Dawson, in the Yukon, about latitude 64° N, has a hot, dry summer. In the long twenty to twenty-two hour days vegetation matures with extraordinary rapidity, so that most grains and vegetables may be grown. The winters, however, are very cold, a maximum temperature of 68° below zero having been recorded.

The salient features of the climate of the continental plain are the clear, bracing atmosphere, cold winters, warm summers, and the small precipitation. The spring is usually


MEAN ANNUAL RAINFALL
Figures indicate Rainfall in inches
English Miles
0 50 100 200 300 400
PACIFIC OCEAN
ATLANTIC OCEAN
GREENLAND
Baffin Land
Hudson Bay
Labrador Peninsula
QUEBEC
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
Prince Edward I.
Cape Breton I.
Manitoba
North Dakota
Lake Superior
Lake Michigan
Lake Ontario
Lake Erie
Gulf of St Lawrence
Davis Str.
Hudson Str.
Belle Isle Str.
Cabot Str.
Ottawa
Montreal
Quebec
Toronto
Buffalo
Boston
NEW YORK
Halifax
Winnipeg
Vancouver Island
Queen Charlotte Is.
Chukchakoff I.
Nicholson I.
Southampton I.
Coats I.
Mansfield I.
Akpatok I.
Resolution I.
Salisbury I.
Cumberland Peninsula
Frobisher Bay
Home Bay
Cumberland Sd.
Hamilton Inlet
Battle Harbour
Labrador
Newfoundland
Anticosti I.
Gaspe
Miquelon
Fortune
Placentia
St Johns
C. Race
Cape Breton
Sydney
Louisburg
Yarmouth
Liverpool
Portland
Albany
Rochester
Buffalo
Syracuse
Lake Ontario
Lake Erie
Lake Michigan
Lake Superior
Lake Winnipeg
Lake Manitoba
Hudson Bay
James Bay

CANADA - CLIMATE

After James White, F.R.G.S.



The Edinburgh Geographical Institute

John Bartholomew & Co

Prepared expressly for "Canada and Its Provinces"

slightly in advance of South-Western Ontario, and owing to the high daily temperatures and long, sunny summer days, the crops mature quickly. The mean temperature for July in Winnipeg is 66°, with an average daily maximum of 78° and a minimum of 53°. The light snowfall and dry air make it possible, in the southern portion of the plains, to allow horses and cattle to range throughout most winter seasons.

In the northern portions of the Laurentian plateau spring is later, winter lingering until the end of April ; but, except near the coast of Hudson Bay, and in the wet ground where a thick blanket of moss keeps the air cool and increases the precipitation, the summers are not markedly dissimilar to those of the south. Northern Ontario, north and north-east of Lake Superior, and near the height of land (Hudson Bay divide), and Northern Quebec, north of a line from this point on the western boundary to the St Lawrence a little below Quebec, have a long cold winter. Scarcely a winter passes without −50° being registered at White River. As a rule the snow remains in the woods till the beginning of May, but summer comes at once, and four superb months follow. From the summer isotherm it will be evident that Northern Ontario and Quebec to James Bay are suitable for agriculture. In the valleys of the Ottawa and upper St Lawrence the winters are moderately cold, but pleasant. Spring comes with the beginning of April, and the beginning of May sees the foliage well advanced, and then follows a decidedly warm summer, comparable with that of France.

The Ontario peninsula has a mild winter, and the summers are not oppressively hot, a characteristic resulting from the tempering influence of the Great Lakes. The April temperatures are those of Southern Scotland ; the May temperatures, those of Southern England ; and the summer, those of France. The autumns throughout Canada are usually extremely pleasant. The annual precipitation for Ontario and Quebec is between thirty and forty inches.

In the Maritime Provinces spring is later than in Southern and Western Ontario, owing to the presence off the coast of ice from the north. The summers are not quite so warm as those of Western Canada, but, on the other hand, linger

longer. The precipitation is between forty and forty-five inches, except along the southern coast of Nova Scotia, where it is ten inches greater.

VIII

GEOLOGICAL CONDITIONS AND SETTLEMENT

THE nearness of the coast of the Appalachian region to Europe, and its harbours, fertile valleys, and prolific fisheries, ensured its early settlement, but the ranges of the Appalachian discouraged its extension westward, and cut off the Maritime Provinces from Central Canada, except by way of the St Lawrence. The St Lawrence, giving access to the Medial Plain, was early ascended, and the attractive lowlands brought colonists, so that the Medial Plain east of the Appalachians in Canada was occupied by Europeans long before the colonists of the New England states had penetrated the Appalachian Mountains. The rapids above Montreal proved a barrier to progress, but, with the fine agricultural lands above, this barrier was soon overcome. The rough southern edge of the Laurentian Plateau, however, walled in the agriculturist, and was penetrated only by the fur trader and lumberman. The former by his occupation was not interested in extending settlement, and the greater part of the fur country was most readily accessible from Hudson Bay ; the latter restricted his operations to the mixed forest on the southerly flowing rivers, so that the north country until recently has remained a *terra incognita* to all except the trapper and explorer. The extension of this plateau west of Lake Superior cut off the fertile western plains from the eastern settlements, and these too remained practically unknown to Eastern Canada and Europe until the confederation of the provinces forced the building of the Canadian Pacific Railway. But the comparative ease with which they could be reached by way of the rivers emptying into Hudson Bay, due to the lowness and comparative flatness of the Laurentian Plateau between Lake Winnipeg and York Factory, caused their efficient occupation by the Hudson

Bay Company and Lord Selkirk's settlers, and secured them against occupation from the Mississippi valley to the south, until the railway was constructed and they became, in fact, an integral part of Canada.

The discovery of gold in California in 1849 opened up the Pacific coast, and the coal of Vancouver Island, the best accessible coal on the coast, became important. The gold prospectors, working northwards, discovered the rich Cariboo diggings up the Fraser River in 1858, brought the isolated little colony of British Columbia into prominence, and created a more correct impression of the value of this region, which was taken into the Dominion of Canada and united with it by rail. On the completion of the road mineral discoveries were made in Southern British Columbia, which, by reason of the transportation afforded by the fiord-like lakes, could be exploited; and this portion of the region was opened up to settlement and industry.

The little colonies were developed in separate geographical provinces that are divided from one another by serious physical barriers, but extend southward through the United States so that the natural connection is southward. However, the St Lawrence River and the Hudson Bay route, both resulting from the physical character of the Laurentian Plateau, made an east and west connection possible, and enabled the colonies to maintain their existence until they could be bound together by artificial lines of transportation. Thus these two routes made the present Dominion, and the Laurentian Plateau may be considered in more senses than one to have been the foundation of the country.

The opening up of the North-West Provinces, where the grass-covered prairie furnished what were practically ready-made farms, took place about the time that the settlement of the St Lawrence lowlands was completed, so that it was natural that the plains should be settled before attention was directed to the arable lands of the Laurentian Plateau, where conditions are rougher and land has to be cleared of forest before it can be broken for crops. It is therefore only now that serious steps are being taken to develop the agricultural resources of this region.

IX

GEOLOGICAL CONDITIONS AND INDUSTRIES

THE Appalachian region extends into Newfoundland, and this extension probably accounts for the Grand Banks. The meeting of the Polar Current and the Gulf Stream, which bring a supply of fish food, and the shallow water of the Banks and gulf, furnish ideal conditions for a great fishing industry. With such a fishing ground, a tremendous length of coast-line, harbours all round the coast and timber everywhere for shipbuilding, fishing and shipping, with attendant pursuits, were the first great industries of the Appalachian region. The fertile valleys attracted those who turned away from a maritime life, but the lure of the sea is shown in Newfoundland, where, though the island is rich in other resources, and has been occupied for four centuries (being Britain's oldest colony), until a few years ago the only occupation of its inhabitants was fishing, or the pursuits incidental thereto. In the Appalachian region of Canada, where the agricultural resources are not as yet fully developed, the mixed forests close to the sea made lumbering a great industry. The advent of steam gave an importance to the favourably located coal seams of Nova Scotia, and the coal formed the basis of an iron industry which the ores of the Appalachian region made possible. The iron industry is giving rise to the manufacturing industries that use iron and steel as raw material.

The physical character of Canada made it a suitable habitat for fur-bearing animals, and the great systems of rivers and lakes enabled the fur trader to take, in his York boat or canoe, to all parts of the country the meagre supplies necessary for barter with the Indians, and to get out his light but valuable pelts. Indeed, it was this trade which first interested France and England in the interior of Canada. The valuable mixed forests, south of the height of land dividing the waters of the St Lawrence from those of Hudson Bay, gave rise to an important lumber industry, for the tributaries of the St Lawrence enabled the logs to be brought to the Great

Lakes or the St Lawrence ; the falls on all the rivers at the southern edge of the Laurentian Plateau, from the head of the Great Lakes to the Labrador coast, furnished power for the mills to saw the logs ; and the river enabled the product to be shipped to the markets of the world. But it was the wide stretch of rich, arable land in the St Lawrence lowlands that gave rise to the dominant industry and made Canada an agricultural country, and the vast areas of farm-lands in the North-West Provinces seem to ensure the continuation of agriculture in the prime position.

In the Cordilleran region fishing and lumbering were bound to be great industries on the coast, the drowned valleys forming fiords, inland passages and sounds, providing richly stocked fishing grounds ; while the heavy precipitation, caused by the warm winds from the Pacific meeting the Coast Range, promoted a wonderfully heavy growth of timber. But it was gold that gave the region its value to the eastern eye and led to the opening up of its Alpine fastnesses ; and, if we leave the fur trade out of account, mining was and is the pioneer industry of British Columbia. Lumbering and agriculture follow in its wake.

Apart from the production of coal in Nova Scotia, the mining industry is a late development in Canada. This seems at first sight strange in a country so richly endowed with minerals. The main reasons would appear to be that the people were agricultural or maritime, and the minerals, for the most part, occur in districts which did not attract them ; that, for the successful prosecution of mining, a technical knowledge and skill were required, which people of such avocations did not possess ; and that, owing to the extension of the physical provinces into the United States, the minerals required in Canada were easily procurable from the adjoining states, where mining was already well established. It has now, however, become one of the leading and most rapidly expanding industries, and is opening up great areas into which the other industries will follow. It is beginning to create centres of population. The sites of the chief towns, local industries, etc., are all dependent to a striking degree upon particular geographical and therefore geological

features. The East, with its coal, excellent water-powers and raw materials, will become a great manufacturing region; but with the coal, natural gas and probably oil of Alberta, and the coal and water-powers of the Cordillera, it is not likely to be the sole workshop for the West, where manufacturing bids fair to develop relatively much faster than has been the case in the Western States.

There are still large areas of agricultural land and lumber and pulpwood of the northern forest that will attract development. But northward the conditions for agriculture become harder and the forest becomes lighter, so that the necessary transportation is unlikely to be provided. The settler in the new and unfamiliar conditions will need a local market while becoming accustomed to them, and learning what to raise and how to do it in competition with the more favourably situated districts. Accordingly, for the northern part of Canada settlement will probably depend upon mining development to provide transportation and furnish local markets, and this, so far as can be judged by the general geological features, it will probably do, just as it has done in the Yukon and other sections of the Cordillera, and also in Northern Ontario. The forest over large sections will, no doubt, be preserved and scientifically managed, not alone for the sake of the wood, but also as a regulator to preserve the efficiency of the water-powers, which will grow in value. Fur ranching is likely to become an industry in such areas. Hudson Bay will again assume importance, as its situation in the heart of the country, the immense territory tributary to its shores, and its nearness to Europe will offset the shortness of the season of navigation.

With mining development in the North and means of transportation in Hudson Bay, even the Barren Lands may be expected to support some other industries. The immense herds of native caribou prove that reindeer ranching would be profitable, if market facilities were available.

The settlements in the northern portions of Canada will be scattered, but these regions may support, in the aggregate, a large population.

X

FLORA

ON the basis of geographical distribution the flora of Canada may be divided into several groups. The line of demarcation between the provinces occupied by these groups is not as a rule sharp and clean-cut, but is usually characterized by a transition zone in which the flora of the one region mingles with that of the next.

North of a line extending roughly from near the mouth of the Mackenzie River to Churchill, on Hudson Bay, and from about the Clearwater River on the east side of the bay to Ungava Bay, and thence south-east, parallel to the Labrador coast, are the 'Barren Lands.' This is beyond the limit of trees, and the vegetation is distinctly Arctic or circumpolar. South of the Barren Lands to the open prairie on the south-west, and to South-Western Ontario and the Appalachian region on the south, the whole country is forested with coniferous and poplar trees of Northern European and Asiatic types.

The deciduous-leaved forests of Western Ontario and the Maritime Provinces are southern and American in type. The prairies have a distinctive flora, south-western in origin, though the eastern forest types extend along the river valleys far out into the prairies, or until the more arid districts are reached.

The Cordilleran region, on account of the great range in altitude and precipitation, has a diversified flora. The Rockies form a sort of barrier against the eastern vegetation. On the mountain summits is an Arctic flora, with a marked change to Alaskan species on the ranges of the coastal system. The coast flora is that of Northern California or Oregon, tropical in its luxuriance, while the 'Dry Belt' of the Interior Plateaus has many species of the desert region of Washington.

Except along the southern fringe, where the southern types begin to appear, the forested belt has a northern or sub-Arctic forest. The black spruce (*Picea nigra*), white spruce (*Picea alba*), tamarac or larch (*Larix americana*) and

Banksian pine (*Pinus banksiana*) may be considered as forming the sub-Arctic forest proper. They preserve their tree-form to the limit of the Barren Lands, beyond the borders of which they are found clustered in outliers. With the above trees are found the poplar (*Populus tremuloides*), the balsam poplar (*Populus balsamifera*), white or canoe birch (*Betula papyrifera*). The Canada balsam (*Abies balsamea*) also occurs, but in more limited range. In the eastern half of Canada, south of the Hudson Bay-St Lawrence watershed, southern trees gradually make their appearance—white cedar (*Thuya occidentalis*), black ash (*Fraxinus sambucifolia*), white and red pine (*Pinus strobus* and *resinosa*), elm (*Ulmus americana*), yellow birch (*Betula lutea*), sugar maple (*Acer saccharinum*), iron wood (*Ostrya virginica*), hemlock (*Tsuga canadensis*), beech (*Fagus ferruginea*), basswood (*Tilia americana*), red oak (*Quercus rubra*), butternut (*Juglans cinerea*), and others, —forming a mixed forest, which characterizes the southern fringe of the Laurentian Plateau, most of the St Lawrence lowlands and the Appalachian region, except the higher or more exposed areas which the northern flora occupies.

The flora of the Maritime Provinces, Quebec and Eastern Ontario is practically the same, save that Nova Scotia, on account of her almost insular position, has several species that are not found inland.

Owing to the cold winds from the sea the coast species are generally northern; but inland, on the elevations, the hardwood forest of maple, beech, ash and birch, with a sprinkling of spruce and pine, is found.

Passing westward from Nova Scotia, the southern American flora becomes generally more prominent, but the north shore of the St Lawrence preserves a distinctly northern character as far as Quebec city, such plants as *Thalictrum alpinum*, *Vesicaria arctica*, *Arastrium alpinum*, *Saxifraga caespitosa* being found. Along the St Lawrence lowlands proceeding westward the southern flora becomes more prominent. Wild grape (*Vitis riparia*) and Silver berry (*Elaeagnus argentea*) appear in the vicinity of Quebec, and at Montreal the belt of southern flora may be said to be entered, slippery elm (*Ulmus fulva*), rock elm (*Ulmus racemosa*),

shellbark hickory (*Carya alba*), blue beech (*Carpinus caroliniana*) and many other species making their appearance. But it is in the Ontario peninsula, south-west of the line between Toronto and Georgian Bay, that the southern flora reaches its full development, distinguishing this area from all others in Canada. Among the trees peculiar to this section may be mentioned cucumber tree (*Asimina triloba*), tulip tree (*Liriodendron tulipifera*), Kentucky coffee tree (*Gymnocladus canadensis*), honey locust (*Gleditschia tricanthos*), crab apple (*Pirus coronaria*), sassafras (*Sassafras officinale*), black walnut (*Juglans nigra*), chestnut (*Castanea sativa*), white, scarlet, swamp and black oak (*Quercus bicolor, coccinea, palustris, tinctoria*), button-wood (*Platanus occidentalis*).

The conifers are not abundant, but the hickories, oaks, chestnuts and button-woods flourish. With the forests the shrubs and herbaceous plants also change.

The trees of the North-West Provinces are almost exclusively those of the northern forest, but a few from the mixed forest of the east appear in Manitoba, such as the elm, basswood, green and red ash, which are found in the river valleys. The over-cup oak forms thickets and open forests at a number of points in Manitoba. West of the Assiniboine River, the few trees found, outside the northern forest, are western species. The prairie flora consists principally of grasses, of which no less than forty-two genera and one hundred and fifty-six species are known. Of the best hay and pasture grasses, Agropyrum, Elymus, Stipa, Bromus, Agrostis, Calamagrostis and Poa, there are fifty-nine species. Besides the grasses there are leguminous plants such as vetches (*Vicia*) and wild pea (*Lathyrus*), valuable for pasture. Around the alkaline ponds some marine plants are found.

The southern Cordilleran region has in general a western flora. On the eastern border it retains some of the eastern species, and on the high summits an Arctic flora is found. In the central and northern portions of the region the flora emerges into the sub-Arctic, and takes on an eastern aspect.

Among the trees may be mentioned the white and Engelmann's spruce (*Picea alba* and *engelmanni*), mountain balsam (*Abies subalpina*), Douglas fir (*Pseudotsuga douglasii*),

Rocky Mountain, black, white-barked, western white, and yellow pines (*Pinus flexilis, murrayana, albicaulis, monticola* and *ponderosa*), mountain larch (*Larix lyallii*) and western larch (*Larix occidentalis*), western white cedar (*Thuya gigantea*), mountain and western hemlocks (*Tsuga patteniana* and *mertensiana*) and mountain fir (*Abies amabilis*).

The forest of the Rocky Mountains, south of latitude 53°, is largely made up of spruce, black pine, and Lyall's larch at the timber line. Between the Rockies and the Coast Range western hemlock and white pine, with Douglas fir, characterize the mountains. The valleys generally contain spruce and cedar. Toward the Dry Belt the yellow pine is characteristic.

On the upper slopes of the Coast Range Patten's hemlock and white fir are common.

The Dry Belt of the Interior Plateaus is treeless and grass-covered, except in the moist valley bottoms and on the tops of the higher ridges. Its flora is in part peculiar to the American desert, containing such species as *Purshia tridentata*, *Artemisia tridentata*, and species of Gilia, Cactacea, Astu and Erigonum.

On the Pacific coast and in the Selkirks, where the precipitation is heavy, the vegetation is of tropical luxuriance, and the forest is of great value. The mixed forest of Eastern Canada is also most important for its timber. The southern portion of the northern forest has merchantable timber, and the northern forms a vast storehouse of pulpwood. Where the original forest has been removed, as by forest fire, spruce, balsam, birch and tamarac usually constitute the immediate second growth.

The Barren Lands are treeless and support an Arctic flora,—mosses, lichens, grasses, flowers and stunted plants, of which *Rhododendron lapponicum*, *Cassiope tetragona* and dwarf willows are perhaps the most characteristic. The stunted nature of the growth will be realized from the fact that on the shores of Hudson Strait the blueberry is a bush about one inch high, with proportionally diminutive fruit.

Prepared expressly for "Canada and Its Provinces."

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XI

FAUNA

LIKE the flora, the fauna bears a marked resemblance to that of Europe and Asia, so that it is by some authorities united with Eurasia into one zoo-geographical province. The beaver and polar bear are common to both continents. The moose, wapiti, bison and grizzly bear are related to the elk, stag, aurochs and brown bear. The groups of cats, lynxes, weasels, bears, wolves, foxes, seals, hares, marmots, lemming, sheep and deer are well represented in each. But there are some forms peculiar to North America—among the rodents, the gopher, musk-rat, prairie dog and porcupine; among the carnivora, the racoon and skunk; and among the ungulates, the musk-ox, big-horn, mountain goat and prong-horn. The birds also bear a close resemblance, with, however, some admixture of South American, such as the humming-bird.

The distribution of North American fauna may be divided into two great provinces, Boreal and Austral. The southern limit of the former is the isotherm of 64·4° F. for the six hottest weeks of summer, corresponding rather closely with the isotherm of 65° for July, so that most of the Canadian fauna is Boreal, only the northerly transition zone of the Austral province extending into Canada, in Southern Ontario, in the prairie country, and in Southern British Columbia. The fauna of the Boreal province has been further subdivided into three zones: the Arctic, extending south to the isotherm 50°; the Hudsonian, lying between this and isotherm 57°; and the Canadian, lying between isotherm 57° and isotherm 64·4°.

The commoner larger mammals are the moose, woodland caribou, Virginia deer, black bear, timber wolf, fox, lynx, beaver, otter, marten, fisher, mink, musk-rat, porcupine and hare. They range from the Atlantic to the Pacific and north to the Barren Lands, plentiful in some localities, and almost or entirely wanting in others. The Virginia deer is replaced in the West by a near relative (*C. leucurus*), and in the Cor-

dillera the caribou appears to be distinct from the Eastern species. The wolverine is common, particularly in the north. On the prairie, coyote, prong-horn, antelope, jack-rabbit and prairie dog are common. The bison, which once covered the plain, is now restricted to the Mackenzie basin, where a herd of 'wood-bison' under government protection is still in existence. The elk (*C. canadensis*) and mule deer are now restricted almost exclusively to the Cordilleran region and to Manitoba. In addition to most of the above mammals the Cordilleras contain some that are not now found elsewhere, such as the grizzly and cinnamon bears, cougar mountain goat, big-horn, and in the north several other sheep, such as the Dall's white and the saddle-back. The species that are common to the eastern country and the Cordillera seem to attain a larger size in the latter region. In the northern zone are barren ground caribou, which range in immense herds, musk-ox, Arctic fox and hare, lemmings of the genera Lemmes and Dicrostonyx, and, along the coasts, polar bear, seal and walrus.

The mammals, as is the case of the fauna in general, have not been thoroughly investigated, but over a hundred and thirty species are recorded, of which more than one-third are rodents, almost a quarter are carnivora, and a great many insectivora. The most attractive localities for the big-game hunter are New Brunswick, Northern Quebec, Ontario and the Cordilleran region.

The birds are mostly species found in the Austral region that migrate north in summer to nest. Among characteristic North American species may be mentioned the Baltimore oriole, the bobolink, the cow-bird, the fly-catchers and the warblers. Some birds winter in Canada, as the Canada jay, the raven, the ptarmigan, the grouse, the grosbeak, the waxwing and the snow bunting. The prairie is richer in birds than other parts of Canada, and for game birds is probably unexcelled anywhere. Swan, Canada goose, wavey, brant, laughing-goose and other varieties of geese and a great variety of ducks are among those sought by the sportsman. Grouse are plentiful, and include several varieties; the more common are the blue grouse, in the mountains, the Canadian

ruffed grouse, grey ruffed grouse, spruce grouse, prairie hen and prairie chicken. The willow ptarmigan and rock ptarmigan are more common in the north and in the mountains. In Ontario the wild turkey and the ordinary quail are occasionally found; in British Columbia, the California quail. The golden eagle, the bald-headed eagle, the osprey and a great variety of hawks are common throughout Canada, as are the snowy, horned and other owls. Song-birds are common, especially in the timbered region, and include the American robin, various sparrows, the catbird, the oriole and thrushes. Nearly all the sea-birds of Great Britain, or closely allied species, frequent Canadian waters.

The reptiles and amphibians are well represented. Fifteen species of snakes are known in the east. On the western plains and in the interior plateau two species of rattlesnakes and a few lizards occur.

Turtles belonging to Chelonia, Chelydridae and Kinosternidae, and in the south Tryonychidae, are numerous. Salamanders are also common. Frogs and toads herald the opening of the ponds and lakes by a chorus made up of eight distinct species of Rana and four or five Hylidae.

The fishes of Canada are interesting from the commercial as well as the scientific standpoint. Not only are the coast fisheries of great value, but the numerous large lakes and rivers are stocked with exceptionally fine game and food fishes. From the scientific standpoint the most interesting feature is perhaps the great development of certain families of Teleosts. The Siluroids, almost unrepresented in Europe, here furnish some of the commonest species, such as the small horned pout and the great catfish, which may attain a weight of one hundred pounds. The herring and salmon families develop land-locked forms. Among the most valuable fresh-water fish are the white fish (*Coregonus clupeiformis*) and lake trout. The pike is represented not only by the common European form, but also by the Maskinonge (*E. masquinongy*), specimens of which have attained one hundred pounds in weight. Highly characteristic of the inland fresh waters are the ganoids, sturgeon, garpike and bowfin (*Amia calva*).[1]

[1] For the chief commercial fish of the various provinces see Appendix IV.

APPENDIX I

GEOLOGY AND ECONOMIC MINERALS OF CANADA

Typical and More Important Mineral Deposits of the Appalachian Region

Economic Material	Character and Mode of Occurrence	Locality
Gold	Free gold with pyrite, etc., in a gangue of quartz, with some calcite-forming veins in the gold-bearing series of Cambrian or pre-Cambrian age.	Nova Scotia gold-fields.
	Free gold with pyrite, etc., in a gangue of quartz-forming veins in pre-Cambrian schists, etc.	Cape Breton.
	Alluvial gold in pre-glacial sands and gravels in ancient, largely buried river valleys.	Gilbert River field, Que.
	See also under Copper, Antimony.	Eastern Townships, Que.
Copper-Gold-Sulphur	Chalcopyrite with small amounts of chalcocite and bornite, in pyrite, replacing country rock and forming lenses in pre-Cambrian schistose porphyries and andesites.	Eustis, Capelton and Suffield mines, Eastern Townships, Que.
Copper	Chalcopyrite, bornite and chalcite forming bodies in Ordovician sediments and near intrusive, basic dikes.	Acton, Que.
	Chalcopyrite with a little pyrite in pyrrhotite, forming irregular bodies lying along the contact of Ordovician strata and intrusive diabase.	South-Eastern Quebec.
	Chalcopyrite, etc., in mineralized zones in pre-Cambrian felsites, etc.	Coxheath, Cape Breton.
	Native copper in veins and along jointing planes in Triassic trap.	Minas Basin, N. S.
Lead	Galena in small veins and pockets in Carboniferous limestone.	Colchester Co., N. S.
	Galena and sphalerite in veins cutting Silurian strata.	Gloucester Co., N. B.

Economic Material	Character and Mode of Occurrence	Locality
TIN	Cassiterite in small quantities associated with various minerals containing lithium, boron, etc., in pegmatite cutting Devonian granite.	Lunenburg Co., N. S.
CHROMIUM	Chromite forming irregular pockets in serpentine of Ordovician or pre-Cambrian age.	Eastern Townships, Que.
MANGANESE	Chiefly pyrolusite forming veins, pockets and large bodies in Carboniferous limestone.	Hants Co., N. S.; near Sussex, N. B.
TUNGSTEN	Scheelite with mispickel in quartz veins cutting the gold-bearing series. Hubnerite in quartz veins cutting pre-Cambrian gneiss. Wolframite.	Halifax Co., N. S. Inverness Co., N. S. South-West Miramichi River, N. B.
IRON	Hematite in fossil-bearing beds in Devonian and Silurian strata. Hematite, high in manganese, forming beds in Silurian slates. Siderite, limonite, etc., occurring within a zone of veins of ankerite, siderite, etc., cutting Devonian sediments near intrusive acid igneous bodies. Magnetite in elongated bodies with local developments of pyrite, etc., lying in early Palæozoic or older altered sediments and volcanics.	Torbrook, N. S. Woodstock, N. B. Londonderry, N. S. Gloucester Co., N. B.
SULPHUR	See under Copper-Gold-Sulphur.	Eastern Townships, Que.
ANTIMONY	Auriferous stibnite, with pyrite, mispickel, and galena, in a gangue of calcite, forming veins cutting the gold-bearing series. Native antimony and stibnite in quartz veins cutting early Palæozoic sediments in the neighbourhood of intrusive bodies of granite and diabase.	West Gore, N. S. Prince William, N. B.
BARIUM	Barite forming pockets and irregular bodies in Palæozoic strata. Barite in a gangue of calcite with some quartz and fluorite, forming veins cutting pre-Cambrian schists, etc.	Cumberland Co., N. S. Cape Breton.

Economic Material	Character and Mode of Occurrence	Locality
ASBESTOS	Complicated systems of narrow, gash veins of asbestos in small bodies of Ordovician and pre-Cambrian serpentine, with which is associated granite, etc.	Thetford, Black Lake, Que.
COAL	Bituminous coal in Carboniferous strata.	Sydney and Inverness, Pictou and Cumberland Co.'s, N. S.
OIL AND SULPHATE OF AMMONIA	In beds of highly impregnated shales of early Carboniferous age.	Albert Co., N. B.; Hants, Pictou, and Antigonish Co.'s, N. S.
GAS	In lower strata of above series.	Near Moncton, N. B.
GYPSUM	In thick beds with anhydrite and associated with Carboniferous limestones.	Hillsborough, N. B.; Windsor, etc., N. S.

APPENDIX II

GEOLOGY AND ECONOMIC MINERALS OF CANADA

TYPICAL AND MORE IMPORTANT MINERAL DEPOSITS OF THE LAURENTIAN PLATEAU

Economic Material	Character and Mode of Occurrence	Locality
GOLD-ARSENIC	Free gold and auriferous mispickel occur in quartz veins cutting schists and basic igneous rocks of the Hastings-Grenville series, usually near granitic intrusions.	Deloro, Ont.
GOLD	Free gold and auriferous pyrite with pyrrhotite in quartz veins and stringers cutting altered gabbro of the Hastings-Grenville series.	Belmont, Ont.

Economic Material	Character and Mode of Occurrence	Locality
GOLD—*contd.*	Free gold with pyrite and chalcopyrite in quartz veins in Keewatin schists, etc.	Porcupine, Shakespeare mine, near Webbwood, Western Ontario.
PLATINUM	In the mineral sperrylite in the nickel-copper deposits of Sudbury. See under Nickel-Copper.	Sudbury, Ont.
COPPER	Native in Keweenawan diabase, Lake Superior shores, also in diabase about Coppermine River, north-west of Hudson Bay.	
	Chalcopyrite, with, towards the surface, bornite in veins of quartz with some calcite, cutting Huronian sediments and post-Huronian diabase.	Bruce Mines, Ont.
	Bornite, chalcocite, chalcopyrite, pyrite, etc., in impregnated zones in schistose diorite, garnetiferous gneiss, etc.	Parry Sound, Ont.
	Chalcopyrite. See under Nickel-Copper.	Sudbury, Ont.
SILVER	Native silver and argentite in veins of calcite and barite with varying amounts of quartz and fluorite, traversing Animikie sediments and post-Animikie diabase.	Silver Islet, Lake Superior.
	Native silver with argentite, smaltite, cobaltite, niccolite, native bismuth, etc., in narrow veins of calcite, lying chiefly in Huronian sediments and post-Huronian diabase.	Cobalt, Ont.
	Native silver and argentite with hematite and various sulphides in aplite dikes, cutting post-Huronian diabase.	South Lorrain, James Township, etc., Ont.
LEAD	Galena in calcite veins traversing mica schists of the Hastings-Grenville series.	Hastings Co., Ont.
ZINC	Zinc blende and galena in irregular bodies in crystalline limestone of the Hastings-Grenville series.	Frontenac Co., Ont.
	Zinc blende with iron and copper sulphide forming irregular, lenticular bodies in Keewatin schists.	Rossport, Ont.
NICKEL-COPPER	Pentlandite, chalcopyrite, and pyrrhotite, in very large irregular deposits, situated at the edge of a norite body, intruding pre-Cambrian sediments and igneous rocks.	Sudbury, Ont.

Economic Material	Character and Mode of Occurrence	Locality
NICKEL-COPPER—*contd.*	Niccolite, etc., occurring in the silver-bearing veins of Cobalt. See under Silver.	Cobalt, Ont.
IRON	Bog ore deposits, still under formation.	Three Rivers, Que.
	Magnetite, or, to a lesser extent, hematite and coloured cherty quartz, interbanded in long bands with Keewatin rocks.	Lake Nipigon, Lake Timagimi, Ont.
	Bands of magnetite, locally impregnated with sulphide, lying in Keewatin schists.	Atikokan Range, Ont.
	Irregular bodies of magnetite with hornblende and epidote, in a formation of magnetite and siliceous material, lying in Keewatin schists.	Moose Mountain, Ont.
	Concretionary-like hematite and limonite with large sharply defined bodies of granular iron pyrite, forming a large body associated with banded siliceous rocks, containing magnetite, iron carbonate and pyrite, and surrounded by Keewatin schists.	Helen Iron Mine, Ont.
	Irregular, often large masses of magnetite with varying amounts of pyrite, lying along the contact of crystalline limestone.	
	(Hastings-Grenville series) and intrusive granites, etc., or within bodies of basic igneous rocks.	Hastings Co., Ont.
	Large and small, irregular bodies of titaniferous magnetite, associated with bodies of anorthosite.	Quebec, Lower St Lawrence.
	Iron sands derived from the titaniferous magnetites of the anorthosite bodies.	
	Bodies of hematite and limonite in beds of cherty iron carbonate belonging to the Animikie sedimentary series.	Loon Lake, Ont.
	Seams and layers of variously coloured quartz forming part of the Nastapoka sedimentary group.	East shore of Hudson Bay.
SULPHUR	Large elongated lenses of pyrite and quartz in Keewatin schists.	Near Missinaibi, Ont.
	Pyrite, associated with iron ore. See under Iron.	Helen Iron Mine, Ont.
ARSENIC	Auriferous mispickel accompanied by pyrite and chalcopyrite, and forming large and small bodies in Keewatin schists, in gneisses, etc., of Hastings-Grenville series.	Net Lake, near Lake Timagimi.

Economic Material	Character and Mode of Occurrence	Locality.
ARSENIC—*contd.*	Deposits of mispickel. See under Gold-Arsenic.	Deloro, Ont.
	Smaltite, etc., in silver veins. See under Silver.	Cobalt, Ont.
COBALT	Cobaltite, etc., in silver veins. See under Silver.	Cobalt, Ont.
MICA	Muscovite, in pegmatite dikes.	Buckingham district, Que.
	Phlogopite, commonly accompanied by apatite, in veins of calcite, pyroxene, etc., cutting rocks of the Hastings-Grenville series.	Eastern Ontario.
GRAPHITE	In plates disseminated through bands of gneiss, quartzite, etc., of Hastings-Grenville series, usually near intrusive granites. Graphite in veins, in granitic rocks, or in irregular deposits in crystalline limestone.	Buckingham district, Que.
CORUNDUM	Richly disseminated in various alkali syenites, anorthosite, etc., cutting members of the Hastings-Grenville series.	Renfrew Co., Ont.
APATITE	Associated with phlogopite. See under Mica.	Ottawa River, Eastern Ontario.
FELDSPAR	Coarse pegmatite dikes cutting pre-Cambrian gneisses, etc.	Frontenac Co., Ont.
TALC	In serpentines associated with Hastings-Grenville series.	Hastings Co., Ont.

APPENDIX III

GEOLOGY AND ECONOMIC MINERALS OF CANADA

Typical and More Important Mineral Deposits of the Cordilleran Region

Economic Material	Character and Mode of Occurrence	Locality
Gold	Alluvial gold in pre-Glacial sands and gravels, and in more recent deposits derived from these.	Klondike, Y. T.; Atlin, Cariboo, B. C.
	Auriferous mispickel with varying amounts of copper and iron pyrites occurring in bodies replacing country rock along or near contact of igneous rocks of dioritic affinities and in a gangue of garnet, epidote, calcite, etc.	Hedley, B. C.
	Free gold with a little pyrite and some galena and zincblende, in quartz fissure veins cutting carbonaceous phyllites.	Lardeau district, B. C.
	Free gold, argentiferous tetrahedrite, galena, zincblende, iron and copper sulphide in quartz veins cutting carbonaceous phyllites.	Lardeau district, B. C.
	Free gold in schistose pyritiferous diabase, and in quartz veins holding mispickel, galena, and pyrite.	Poplar district, B. C.
	In copper-gold deposits. See under Copper-Gold.	
Platinum	Native platinum occurring sparingly in gold placer deposits, and in serpentinized basic eruptive rock.	Klondike, Y. T.; Tulameen River, B. C.
Mercury	Cinnabar in irregular veins of calcite and quartz, cutting Tertiary volcanics and also impregnating sandstones.	Near Kamloops Lake, B. C.
Copper-Gold	Magnetite, chalcopyrite, and pyrrhotite in varying proportions occurring in large bodies replacing Palæozoic tuffs and limestone, in a gangue of garnet, hornblende, calcite, quartz, etc., in neighbourhood of bodies of granodiorite and Tertiary syenite.	Boundary district, B. C.
	Chalcopyrite and pyrrhotite with some pyrite, magnetite, and mispickel, occur-	Rossland, B. C.

Economic Material	Character and Mode of Occurrence	Locality
COPPER-GOLD—*contd.*	ring in veins or in large bodies replacing augite porphyrite near contact with monzonite and in neighbourhood of bodies of graniodorite and Tertiary syenite.	
	Chalcopyrite, bornite, pyrite, and pyrrhotite, with a little calcite in a fissured zone on or near contact of sediments and monzonite.	Copper Mt, near Princeton, B. C.
	Chalcopyrite, pyrite, mispickel and magnetite with calcite in zones of fissuring in monzonite and sediments.	Copper Mt, near Princeton, B. C.
	Chalcopyrite and pyrite with a little galena and zincblende in small veins and lenses within a mineralized zone in a quartz sericite schist cut by granitic body of Coast Range batholith.	Britannia Mine, Howe Sound, B. C.
	Chalcopyrite and pyrite with galena and zincblende in a gangue of barite with quartz and calcite, forming flattened lenses in schist.	Tyee Mine, Vancouver Island.
	Bornite with subordinate chalcopyrite, a little pyrite and pyrrhotite replacing limestone in a gangue of pyroxene, garnet, and calcite, near granite contact.	Texada Island, B. C.
SILVER-LEAD	Argentiferous galena with some zinc blende and a little pyrite, forming irregular lenses in a fissured zone within pre-Cambrian quartzite.	St Eugene Mine, Moyie, B. C.
	Argentiferous galena, argentiferous tetrahedrite, native silver and gold, argentite, zincblende, copper and iron pyrites, in a gangue of quartz, siderite and calcite in veins cutting sediments.	Slocan, B. C.
	Galena, zincblende, pyrite, and pyrrhotite, in varying proportions, replacing crystalline limestone along a zone of shearing.	Kootenay Lake, B. C.
	Native silver, argentite, pyrargyrite, argentiferous galena, pyrite, copper minerals, etc., in quartz fissure veins cutting porphyrites.	Windy Arm, Y. T.
IRON	Vein-like bodies largely of hematite with some magnetite cutting pre-Cambrian quartzites.	Kitchener, B. C.
	Magnetite in a gangue of calcite, feldspar and epidote in veins traversing a plutonic rock.	Cherry Bluffs, Kamloops Lake, B.C.

Economic Material	Character and Mode of Occurrence	Locality
IRON—*contd.*	Magnetite in places with copper and iron sulphides in irregular vein-like bodies, replacing country rock, usually limestone, and commonly along contact with intrusive granites.	Texada Island, B. C.
COAL	Anthracite, in Kootanie formation (lower Cretaceous).	Bankhead, Alta.
	Bituminous coal in Kootanie formation.	Fernie, Blairmore-Frank.
	Bituminous coal approaching lignite, in Belly River formation (upper Cretaceous) and in Edmonton formation (Tertiary).	Foothills of Rocky Mts.
	Bituminous in upper Cretaceous.	Nanaimo, Comox, Vancouver Island.
	Lignite, in Tertiary beds.	Princeton, Bulkley Valley, B. C.; Tantalus, Y. T.

APPENDIX IV

CHIEF COMMERCIAL FISH OF THE VARIOUS PHYSICAL PROVINCES

Appalachian Region.—(Deep sea and inshore) cod, mackerel, halibut, herring, hake, lobster, oyster, seal, white-whale; (Inland) salmon, shad, gaspereaux, striped bass, smelt, ouananiche, lake trout, (lunge) maskinonge.

St Lawrence Lowlands and Laurentian Plateau.—Lake whitefish (Tullibee in Manitoba), lake-trout, lake-herring, sturgeon, dore black bass (in the south), brook-trout, maskinonge, pike, carp, suckers, catfish, (gold-eye, freshwater herring in Manitoba).

Cordilleran Region.—(Inland) land-locked Pacific salmon, lake whitefish, lake-trout, various river-trout, including Kokanee

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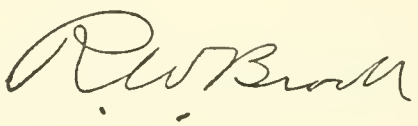
and numerous Cyprinoids, none of which are identical with Eastern species ; (Coast) salmon, halibut, skill, oolachan, anchovy, smelt, and a great variety of other fishes. The salmon, which ascend the coast rivers in the summer in almost incredible numbers, include at least seven distinct species belonging to the genus Oncorhynchus, excluding the steel head (*Salmo gairdneri*).

Hudson Bay and Arctic.—Whale, walrus, sea-trout, inconnu (huge river whitefish), pike, sturgeon, suckers, and possibly salmon and cod.



GENERAL ECONOMIC HISTORY

1867-1912

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I

THE ECONOMIC OUTLOOK FOR THE NEW DOMINION

WITH Confederation a new stage in the industrial development of the northern half of this continent began. The union of the four original provinces, followed speedily by the inclusion of all the British mainland, vitally affected the productive and commercial activities of the separate parts. Nova Scotia and Ontario and British Columbia, bound together as members of a single Dominion, developed interests and relations quite distinct from those prevailing in the days of their isolation. On the very eve of Confederation, the action of the United States in abrogating the reciprocity treaty, which for twelve years had largely determined trade relations, forced commerce to seek new channels.

In the conquest of America the individual has played a greater part than the state. It is easy to exaggerate the influence of political activities on industrial development, to lay stress on the achievement of the politician at the expense of the achievement of the business man, to underestimate the importance of the daily task of farmer and manufacturer and banker in shaping the nation's material growth. The lumberman cutting his way through the solitary pine forests of the Montreal River, the railroad builder pushing the end of steel every day a mile farther north or west, the farmer hewing out a home in the Upper Canada forest or homesteading on Saskatchewan plains, left few records of their daily

task ; the politician worked in the limelight of party and newspaper publicity, so that he who runs may read. Undoubtedly the pioneer, restless, indomitable, has given the distinctive note to the life of the continent. Yet in Canada this has been less the case than in the republic to the south. Motives of state guided the settlement of New France and the building up of the loyalist communities after the Revolution. The paternal zeal of French ministers, the last word of the Colonial Office in London, accustomed the people of Canada to look to a power above and without—a power, not themselves, making for prosperity. Later, when increasing self-confidence brought Confederation, and Confederation brought increasing self-confidence, the somewhat artificial and essentially political character of the new union continued to magnify the importance of the state and of the large tasks with which only the state could cope. Questions of state policy, foreign and domestic, have possessed special significance in the upbuilding of Canada. It has seemed advisable, therefore, to make the federating of the scattered provinces the occasion for a summary review of the industrial potentialities of the new nation, and, in tracing the realization of these latent possibilities, to find convenient halting points in the changes of party régime in 1878, 1896 and 1911.

The citizens of the new-born Dominion, taking stock of national resources, had reason to face the future with courageous hope, sobered by a sense of the obstacles to unity, heartened by a knowledge, or foreshadowing, of the splendid heritage to be developed. There was ample room for the growth of a mighty people ; the Dominion covered, or was soon to cover, some three and three-quarter million square miles, an area larger than the United States, and nearly as large as the whole of Europe, bordering on three oceans, and stretching from the latitude of Rome to the pole. This great half-continent lay mainly in the temperate zone, the field of the modern world's great civilizations. Being in America, it was conveniently accessible to the markets both of Europe and of Asia, as well as of the United States. Being in the north temperate zone, it was saved the risk of shipping perishable products through the tropics to market. Being

more northerly than the United States, it had the advantage in nearness to the ports of the other northern continents.

Communication was convenient. In the east the waters of the St Lawrence and Hudson Bay offered shipway far into the heart of the continent, though in the winter months the northern frosts sealed the St Lawrence channel and studded Hudson Strait with ice—a drawback railway construction could not altogether remove, with Halifax twice as far as New York from Toronto. On the west coast, though nearly half the length was cut off from direct access to the sea by the Alaskan extension jutting south—as Newfoundland's Labrador strip in parallel but less hampering way barred half the Atlantic coast—the sunken mountain valleys of the southern half provided deep fiord harbours of unsurpassed magnificence. In the interior the St Lawrence chain of lakes and rivers afforded unequalled facilities for transport, with formidable barriers of falls and rapids to conquer. Far to the west the Saskatchewan carried the possibilities of navigation to the foot of the Rockies, its waters falling into Hudson Bay through the Nelson, and into Lake Superior through the Winnipeg and Rainy Lake chain; but the capriciously winding, swift or shallow waterways of the west, running through plain and prairie land that offered open paths, were destined, in spite of oft-recurring plans and projects, long to play a lesser part than the waterways of the east, flowing deep and straight through dense and trackless forests. The broad Mackenzie found outlet in a frozen sea; the rivers of the Pacific coast were more valuable for the railroad bed they had channelled out than for what traffic their own swift waters could bear. Through the mountains of the Far West, passes, some still unknown, were destined to afford passageway for railroads at less than half the altitude to which the transcontinental roads of the United States were forced to climb. Throughout the whole half-continent there were no impassable barriers and but few grades so steep as to hamper traffic.

Of momentous import for the Dominion's future was the geological basis, which has elsewhere been fully described.[1]

[1] See 'The Physical Basis of Canada' in this section.

Habitable Canada was cut in four; nearly half a century after Confederation, the Dominion, seeming on the map to spread two thousand miles from south to north, was still, in three places, less than one hundred inhabited miles wide —where the great Laurentian Plateau all but meets, first Maine and the Appalachian highlands thrusting north, then once more United States territory near the junction of the St Lawrence and Ottawa, and westermost, the waters of Lake Superior. To-day the building of the National Transcontinental and the Hudson Bay railroads, and the rediscovery of the clay belt north of the height of land are giving breadth as well as length, but throughout the whole period covered in this survey breadth was lacking, and these narrow straits cramped and deflected the current of national development. In what other land would the centre of population fall outside its own borders?

The climate of this half-continent presented the widest variations. Southern Ontario lies in the latitude of Rome, Winnipeg in that of Frankfort, James Bay of London, and Fort Liard, half-way between the United States border and the Canadian Arctic coast-line, of Christiania. But the altitude, varying in the west from 4500 feet in South-Western Alberta, to 900 in the Peace valley and 800 at Winnipeg; the equalizing influence of the ocean or Great Lakes; the ocean currents, iceberg-laden on the north-east, bearing the warmth of the mid-Pacific on the north-west; winds that blow from the icy north upon Ungava but westerly and warm upon the western plains, make latitude no certain key to temperature; the summer isotherm of 55°, which, in the heart of the continent, near Rainy Lake, dips down to within fifty miles of the United States border, sweeps far to the north-west, until, on the Mackenzie, it is north of the Arctic circle. Rainfall is normally abundant in the east, and the western coast ranks among the moistest districts of the world. On the interior plateau of British Columbia, and in the plains and prairies of the central west, the annual precipitation ranges only from ten to twenty inches. Fortunately the bulk of the rain falls in the months when it is needed, and the winter's frosts slowly yield moisture to the growing crops; only a

small projection of the American semi-arid region, covering less than a hundred thousand square miles, crosses the Canadian border.

For agriculture the prospect was encouraging. The desolate tundras on both sides of Hudson Bay and the mountain areas excepted, there was little of the Dominion where the ploughman or the grazier might not hope for success. In the Maritime Provinces, in spite of spurs of Appalachian highlands, a fertile soil and moist climate promised well for mixed farming, especially stock-raising, and fruit and vegetable growing. In the St Lawrence valley soil and climate alike favoured grain and roots, stock-raising and dairy-farming, and in large areas fruit-growing. In the central west the riches of the future were still veiled by mists of prejudice, and not the most optimistic foresaw the achievement possible when the way of the land had been learned. The fertile valleys of the Pacific coast and the interior plateau of British Columbia were also rich in promise, but they also were to reveal their wealth only to experience. Yet already enough was known of the wide Dominion to make it clear that agriculture would long be the dominating interest.

Almost as great, and seemingly as inexhaustible, was the forest wealth of the Dominion. There were, it is true, vast treeless areas, the barrens of the far north and north-east, the mountain heights, the southern prairie and the semi-treeless lands south of the barrens, sparsely wooded, with forest density only along the watercourses. But fully half the Dominion was forest clad. From the Maritime Provinces to Manitoba stretched a belt of splendid pine. Beyond it, extending from Nova Scotia to the Yukon, three thousand miles in length and averaging two hundred in breadth, lay the spruce belt of the continent. In the St Lawrence valley the only hard woods were found, valuable, but limited and daily lessening, while on the well-watered Pacific slope a vast and heavily wooded coniferous forest furnished one of the world's greatest timber reserves.

Sea and lake and river offered rich harvests, the east and west coast fisheries being perhaps the most extensive in the world, with quality assured by the coldness of the northern

waters. The western plains at worst would prove a mighty game preserve, even the barren north thus redeeming itself. From east to west mineral wealth lay awaiting the prospector's pick, rich in variety and extent, though destined to slow and often disappointing development. Coal had already been found in abundance on both shores, but the geological structure of the interior made its discovery in the St Lawrence valley improbable. East and west and centre alike held stores of iron ore, large in area, though often difficult in treatment; gold and silver, copper, lead and nickel, asbestos, mica and corundum, were all to be discovered in otherwise barren areas.

Here was wealth to employ and amply to reward the toil of unending millions. Yet, rightly or wrongly, no modern land is content with the partial development which the exploiting of natural resources affords. Industrial and commercial eminence was sought, and might in fair measure be achieved. Abundance of raw material, inexhaustible water power, facility of transportation, growing home and foreign markets, favoured manufacturing growth. The competition of older lands, the isolation of the several distinct regions into which the Dominion was divided, the small and scattered population, the long winters, the scarcity of capital and of labour, and the counter-attractions of cheap land and independence, made it evident that success would not be quickly or lightly won.

Noteworthy among the factors shaping the industrial development of the Dominion have been its relations with the United Kingdom and the United States. From the mother country Canada derived in the main the political institutions which have ensured sound and orderly progress, and in early years the settlers, in later years the capital, necessary for development. British connection influenced, though it could not determine, tariff policy, and proved the deciding factor in preventing the linking of commercial fortunes with the United States. The United States—its borders marching for three thousand miles with Canada's, its people largely of common blood and common tongue—has inevitably exercised even more pervasive influence on the general type of civilization, and especially on the economic

life of the Dominion, an influence acting sometimes by attraction and sometimes by repulsion. It has been said that the United Kingdom influenced Canada from above and the United States from below; we have adopted the cabinet system of Britain and the party methods of the republic; 'God save the King' is sung with more fervour than in England, but Broadway slang is on the free list, and baseball has ousted cricket. In the social and business customs of daily intercourse the influence has been most marked. From the United States Canada derived its later land system, the methods of surveying, the homestead policy, the land grants to railways, the activities of the land company and the subdivision expert. The cheese factory and creamery and the fall fair have been borrowed and bettered. Later came the steam-plough and the gasoline tractor, the elevator and the manipulation of elevator grades. The railroads, from gauge, rolling stock and organization, to construction company methods and political influence, show the power of American example, equally with the decimal currency, the system of commercial accounts, and the patent law. Newspapers, fashions, consumers' standards, are much alike. The machinery and methods in saw-mills, flour-mills, canning and packing factories, carriage works, furniture, agricultural implement, builders' hardware and boot and shoe factories, piano works, blast furnaces and foundries and steel mills, pulp and paper mills, are unmistakably of United States origin, direct or indirect. Organized labour and employers' associations, mergers and methods of high finance, the protective tariff, all reveal the same influence. The early waste of the United States warned, its late repentance stimulated, Canadians to adopt the policy of conserving natural resources. Doubtless much of this parallel development has been due, not to imitation, but to recurrence of similar conditions; doubtless Canada has in her turn modestly influenced the development of the United States, but, all allowance made, there is no question that the intimate, wide-reaching influence of Canada's great neighbour has profoundly affected her industrial development.

Last, but not least important, the observer would have

had to reckon with the personal element in the equation. The Canadian people might in all modesty have considered themselves one of Canada's chief assets. They were almost exclusively of north-western European stock, French, Irish, English, Scottish, German, in the order given. They had been selected and weeded out by the difficulties of emigration and the hardships of pioneer life under a northern sky. Immigration had been gradual, and the newcomers had been thoroughly assimilated; at Confederation eighty-three per cent of the people were native-born, though differences in race and religion and language between French- and English-speaking Canadians undoubtedly diverted energy from economic to political channels. Of industry, orderliness, thrift, and all the copybook virtues they had their due share. Education had been prized, at least in the English-speaking parts, and fairly attained. In many and varied ways Canadians had shown themselves progressive and energetic, and if lacking somewhat of the daring and the sublime self-confidence, individual and collective, which material success and national independence had bred in their cousins to the south, they solaced themselves with the belief that in staying qualities they would prove at least their equals.

II

TAKING STOCK AT CONFEDERATION

SUCH were the more significant elements in the situation which the new-born Dominion had to face. At Confederation only the barest beginning had been made in developing this rich heritage. In the whole half-continent which was soon to be united under one government, there were scarcely three and a half million inhabitants; of these, four of every nine were in Ontario and three in Quebec; west of the Great Lakes, white man, Indian and half-breed all told counted few more than a hundred thousand souls. This pioneer handful were scattered far in farm and fishing village and lumber camp; there were only nine towns in the half-continent with over ten thousand inhabitants. Montreal,

however, had metropolitan claims with its hundred thousand inhabitants, Quebec counted nearly sixty, Toronto fifty, Halifax, St John and Hamilton, between twenty-five and thirty thousand.

In the farthest west relatively little had been done to exploit the varied riches of British Columbia. The feverish days of Cariboo were over, and the production of gold, though still important, had passed the climax. The coal-fields of Nanaimo were being energetically worked. A small export trade in timber had developed. The splendid fisheries of the coast were practically untouched. When the province entered Confederation, one or two whaling enterprises and a solitary salmon-canning factory on the Fraser exhausted the list of endeavour. A few saw-mills and grist-mills, breweries and distilleries, comprised the natural beginnings of manufacturing development. Trade was mainly with the United Kingdom and the United States; direct intercourse with Eastern Canada there was virtually none. East of the Rockies the buffalo still roamed the plains. The palisaded forts of the Hudson's Bay Company, now about to be shorn of its political and territorial powers, a few struggling half-breed settlements on lake and river edge, an occasional brigade of creaking, solid-wheeled, Red River carts laden with furs and pemmican, were the only advance guards of civilization beyond the borders of the Red River settlement.

In the eastern provinces farming came first in importance. The American type of small freehold farm was firmly established. The policy of rapid opening up of the country by actual settlers was being carried out in all the provinces, though with varying energy and varying success. In Ontario the bulk of the land in the western peninsula and on the St Lawrence and Lake Ontario front had been disposed of; in this older region the province still had crown lands and clergy reserves and school lands to sell at modest prices, while a vigorous attempt was being made to carry settlement beyond the Laurentian barrier at which it had halted, by giving free grants of one hundred acres bordering on colonization roads built in the wilderness between Georgian Bay and the Ottawa. Private companies like the Canada Land

Company were slowly selling or leasing their dwindling domains. In Quebec the attempt at setting up feudalism in the New World had been abandoned, though not without leaving a deep and lasting impression on the life of the province. The same policy of free gift of a limited portion of the less desirable lands, and sale on easy terms of the more fertile or more accessible areas, was adopted as in Ontario. In New Brunswick nearly half of the seventeen million acres had been alienated from the crown, though only one-tenth of this half was cleared ; lands were sold at fifty cents an acre, or granted in return for labour on adjoining roads. Nova Scotia had disposed of half of its eleven million acres ; little of the half remaining was suited for cultivation, but all was for sale at forty-four dollars per hundred acres—considered the cost of surveying. In Prince Edward Island the absentee proprietors, to whom the whole area had been lavishly granted, had not yet been bought out, and only a few thousand acres were in possession of the crown.

Ontario was easily first among the provinces in farming, and farming was first among occupations in Ontario. Wheat was still king ; the western province grew many times more wheat than all its sisters, and ranked with the foremost states in the Union, but, except in the newly cropped western counties, reckless wheat-growing was already exhausting fertility. Barley, coming into strong demand with American brewers, and other coarse grains, were rapidly gaining. Stock-raising was fairly widely followed ; private and public effort had led to the importation of improved breeds of cattle and sheep, and laid the foundations for greater success in the future. Dairying was just emerging from farm to factory conditions ; by 1867 there had been established some half-dozen cheese factories on New York models, aspiring some day to equal New York State in quality. Fruit-growing was limited to local demand. In Quebec wheat-growing had long been stationary or retrograde, thanks to wheat-midge and Hessian fly and exhausting culture, but in the coarse grains and in hay and roots progress was marked. In the Maritime Provinces, except in fertile Prince Edward Island, agriculture had a lesser place. Neither Nova Scotia nor

New Brunswick grew enough wheat for its own support, handicapped by excessive moisture; stock-raising, dairy and fruit farming, for which large areas were eminently suited, were also backward. There had been many good citizens but few skilled farmers among their loyalist and Irish and Highland settlers, and the distractions of fishing and shipbuilding in Nova Scotia, and of lumbering in New Brunswick, unsettling and wage-raising, had prevented the concentration that might have developed native skill.

The forest closely followed the farm as a source of wealth, and especially as a factor in the export trade. The red and white pine of the St Lawrence and Ottawa valleys yielded yearly some fourteen million dollars' worth of exports, squared and ship timber to Britain, sawn lumber to the United States, roughly half in value to each. The supply of hardwoods, recklessly burnt or cut in earlier days, was rapidly dwindling; already Canada had been compelled to fall back on Indiana for its chief supply of walnut. Nova Scotia's forests yielded little, but in New Brunswick the white pine, the black spruce and the larch made lumbering pre-eminent. Abundant potash and pearl-ash exports testify to the rapidity with which settlers were clearing the cumbering forest.

The harvest of the sea was little reaped. The value of the year's catch at Confederation was probably less than four millions. On the Atlantic seaboard, where Nova Scotia, then as now, was foremost, a staple dried-fish trade had been built up with little change in methods through the long years since the cod first drew adventurers to the shores of Canada, or at least since the Jersey merchants a century before had organized the fishery. There was little, if any, deep-sea fishing; the in-shore fishery was carried on by traps or weirs on land, or with hook and line in small boats, or in vessels with their half-dozen men venturing out to the banks ten or fifteen miles away. Cod, hake, haddock and pollock, halibut, herring and mackerel, alewives, smelt and flounder, and sardines, or rather young herring, made up the catch. The salmon of the Atlantic rivers was still supreme in eastern markets. In the frontier lakes of Ontario

whitefish was at the zenith of its wonderful abundance; the lakes of the interior were little fished except by Indians and half-breeds for their own use.

The mineral wealth of the country was still little known and less developed. The prospector had worked only in the settled fringe or in the regions made accessible by lake and river channel. Development had lagged for lack of skill or capital or markets. Yet a beginning had been made. The gold which early explorers sought in vain had been found in far-scattered fields. In British Columbia the rich placers of the Fraser and Thompson valleys had drawn tens of thousands into the wilderness; the climax had been reached in 1863, however, with the production of some four millions, and the Cariboo was now dwindling. On the opposite coast gold had been discovered in Nova Scotia in 1860, and, by Confederation, quartz yielding over two millions had been crushed. The alluvial diggings of the Chaudière River in Quebec were extensively if unsystematically prosecuted, and near Madoc the discovery of quartz veins had produced much speculation and a little gold. Silver had been found in many parts of Ontario, but only the mine at Thunder Bay on the north shore of Lake Superior, discovered in 1866, gave promise of profitable working. As far back as 1770 the native copper ores of the same Lake Superior region had lured English capitalists, the first of a long ill-fated line, to investment and loss; from the middle forties operations at Bruce Mines by Montreal and English companies had met temporary successes but final failure. In the Eastern Townships of Quebec copper pyrite ores had been worked for some ten years, and in a few instances rich surface pockets yielded large returns. Iron had been discovered in many quarters but was mined in few; the Londonderry mine was the only one operated in Nova Scotia. In Quebec the large deposits of bog ore north of the St Lawrence, and especially in the Three Rivers district, deposited in lake and swamp by the rivers that flow across the iron-bearing rocks of the Laurentides, the magnetite bed on the Gatineau near Hull, and the black sands of the Moisic River, were being worked, while in Ontario the hematite ores of the Peter Bell mine near

Arnprior, and the magnetites of Marmora, kept hope of a great industry alive.

Of the non-metallic minerals coal held first place. In Nova Scotia, where coal-mining had been carried on sporadically for a century and a half, and energetically after the passing of the reciprocity treaty in 1854 and the dissolution of the General Mining Association's monopoly in 1858, some six hundred thousand tons were raised a year, two-thirds of it being shipped to the United States ; on the Pacific coast the Nanaimo field was yielding about thirty thousand tons. Ontario and Quebec were coalless then as now, but Ontario had its recompense in the petroleum fields of the southern peninsula ; oil had first been struck at Oil Springs in Lambton County in 1862, then Bothwell in Kent was developed, and in Confederation year Petrolia was the centre, shipping or tanking three thousand barrels a day. The lack of markets —Canada was consuming only half the output, and Liverpool port authorities were refusing the evil-smelling product storage-room—was, however, hampering industry and threatening the paper fortunes of speculators. Drilling for oil near Goderich in 1866 had led to the discovery of salt, and in August 1867 some ninety barrels a day constituted the beginning of Western Ontario's salt industry.

The rich opportunities and the imperative tasks of farm and forest and sea had thrust manufacturing into a secondary place. Yet notable beginnings had been made, and an enterprise in planning and an energy in execution displayed which promised well for the future. Ontario and Quebec, with their denser population, their more settled modes of life, and their higher tariff, led the way. The industries which had first developed were those for which abundant raw material was at hand, or those supplying necessities for which transportation difficulties or exigencies which could not brook delay, provided a secure local market. They were nearly all operated on a small scale, meeting merely local needs. As a rule neither large capital nor highly skilled labour was demanded. The industrial establishments in which the value of the product exceeded two million dollars, according to the census of 1871, which included both hand trades and factory

industries, were, in order of magnitude, flour-mills, saw-mills, boot and shoe establishments, including both factories and cobblers' shops, tailor and clothier shops, tanneries, foundries, bakeries, woollen-mills, blacksmith shops, carriage factories, shipyards, sugar refineries, distilleries, meat-curing establishments, carpenter shops, cabinet and furniture shops and factories, printing offices, oil refineries, sash and door factories, furriers' and hatters' shops, agricultural implement factories, dressmaking establishments, saddlery shops, tobacco factories, tin and sheet-iron working shops, carding and fulling mills, and breweries. Clearly the majority of these were based on a ready supply of raw materials, and most of the others, especially the hand trades, on the necessity for manufacturing or repairing on the spot.

Flour and grist mills, around which the earliest villages and towns had grown, led the van ; every county had its mill, many their score, some their fifty, wherever a mill dam and a wheat supply gave opportunity. Saw-mills were twice as numerous, over five thousand in all, and sash and door factories and furniture and cabinet shops followed in natural sequence. The abundance of hides and of hemlock and oak bark had given rise to a flourishing tanning industry, and cheap leather and a high protective tariff had encouraged the growth of boot and shoe manufacturing, most successful of the strictly factory occupations ; at Confederation Montreal was the centre of the industry. Ontario's woollen-mills were flourishing, stimulated by the cotton famine of Civil War times ; the honest worth of her tweeds was widely recognized. Homespuns were still much worn ; perhaps half the farmers still took their wool to a local carding-mill, and after the women had spun it at home, or spun and woven it, took it to a custom weaving-shop or a custom fulling-mill to be finished. Cotton factories were few and backward in comparison ; the necessity of importing all the raw material, and the greater superiority of the machine over hand methods, had prevented cotton-manufacturing from developing, in the way that woollen-manufacturing had developed, as a domestic industry, while English competition had hindered the growth of factories.

The blacksmith shop at the cross-roads had grown from repairing to manufacturing, and farm-implement factories, carriage shops, foundries and machine shops were among the most successful of Canadian industries, meeting on equal terms the United States makers, whose models had been largely followed; the range of foundry product ran from stoves to locomotives. In shipbuilding the eastern provinces, where sea and forest met, were pre-eminent; nearly every bay and creek had its shipyard, and the vessels of Yarmouth and St John and Quebec, rated high for strength and speed, had ready sale on both sides of the ocean. Distilleries and breweries found materials and markets on every hand. Sugar factories in Montreal provided one of the few instances of an industry based on foreign supplies. Chemical industries were little developed, drugs, starch, soap and potash being the chief products. Oil refineries and salt works, it has been seen, were increasing rapidly in Western Ontario. The attempts to smelt copper at Bruce Mines had ended in failure; the Eastern Townships had attained somewhat greater success. In iron-smelting it was still the day of small things; blast furnaces at Londonderry (Nova Scotia) and Woodstock (New Brunswick) enjoyed a feeble and fitful activity; in the Three Rivers district the old St Maurice forges, established by the French authorities in 1733, had ceased to operate, but the Radnor and Drummondville furnaces continued to utilize the bog ores and the charcoal resources of the region, chiefly for the making of car-wheels. In Ontario seventy years' experimenting had seemingly come to nothing—what with ores in pockets or difficult to treat, mismanagement or lack of capital or skill, transportation problems and English competition; at Confederation the Marmora furnaces were passing through a periodical reorganization. Yet the necessity of importing pig-iron from Britain did not prevent rolling-mills and industries utilizing iron from ranking among the most flourishing in the Dominion.

III

1867-1878: LAYING THE FOUNDATIONS

The Policy of the State: Land and Immigration

CLEARLY the first need of the new Dominion was men. Vastly more hands were required for the task of subduing half a continent. The natural growth of the native population was rapid; there was yet no occasion for sermons on race suicide by the heads of the state. And immigrants would come from the crowded lands across the sea even if the Canadian governments took no step, as the United States federal government took no step; ambition beckoned them, philanthropists exhorted and organized them, famine and failure thrust them forth. But the impatient eagerness for expansion and active rivalry of other man-hungry new lands forced the state to aid and stimulate the movement.

After a division of labour between the federal and provincial governments had been agreed upon, an energetic campaign was begun. Agencies were established on the Continent, where they met much opposition, and extended in the United Kingdom, where they met a too ready co-operation from charitable societies, and a prejudice, slowly melting into favour, in other quarters. Pamphlet and press and platform made abundantly clear the rosy opportunities of the new land. Cash supplemented advice. To meet the competition of those Australasian and South American countries which offered free or assisted passages, the Dominion established in 1872 a system of passenger warrants, by which approved immigrants were enabled to obtain passage at £4, 15s., or, if married farm labourers or domestic servants, at £2, 5s., instead of the standard six guinea rate. The pre-Confederation policy of somewhat indiscriminate payment of the inland fares of pauper immigrants arriving at Quebec, even though destined for the United States—a payment covered for a time by a small capitation tax, averaging one dollar a head, and finally abolished in 1872—was restricted by order-in-council in 1868, but in 1872 Ontario and Quebec

agreed to pay two-thirds of the railway fare of immigrants settling in those provinces, the Dominion paying the other third; immigrants for New Brunswick, landing at Halifax, were carried free over the government railways. In addition Ontario paid, with varying restrictions, a bonus of six dollars to adult settlers, after three months' residence in that province. By 1873 the total Dominion and provincial expenditure in promoting immigration had grown to over half a million.

More important in directing the flow of immigration than pamphlets or bonuses was the land policy. The United States in their homestead laws of 1862 and 1864 had boldly adopted the policy of free grants of western lands, in the belief that rapid settlement by freehold proprietors would be of incomparably more benefit to the state than the millions for which the land in time might be sold. The result was speedily seen in the westward surge of European and American alike. If Canada was to hold its own, it was imperative to adopt an equally liberal policy.

In the east the ungranted lands were controlled by the various provinces. Nova Scotia and New Brunswick continued to offer their land for sale at nominal prices. Quebec and Ontario supplemented sales by a system of free grants of their backwoods lands, subject to clearing and residence terms. Ontario in 1868 set aside three million acres for this purpose, and in 1871 even provided ready-made clearings and buildings for settlers, an example which Quebec soon followed in connection with an endeavour to repatriate the French Canadians who had drifted to the eastern states. But the lands thus opened for colonization, in the Ottawa, St Maurice and Saguenay valleys, and the Gaspe peninsula in Quebec, and on the Laurentian backbone of Ontario between the Ottawa and Georgian Bay, were in large part barren, difficult of access, even with colonization roads built, and difficult to clear; the scattered fertile areas were scarcely more than adequate for the expansion of the native-born. The ready-made farm experiment was abandoned because of the inability or unwillingness of the settlers to repay the advances.

If European settlers were to be attracted in great numbers, it was clearly necessary to open up the vast empire between the Great Lakes and the Rockies, transferred in 1869 from the Hudson's Bay Company to the Dominion, and under control of the federal government. Recognizing this need, the Macdonald ministry in 1872 adopted the United States policy, from the method of surveying to the method of granting lands. In every fifth township two, and in the others one and three-quarters, of the thirty-six square-mile sections were set apart for the Hudson's Bay Company, and two as endowment for schools. The rest were thrown open to settlement, by purchase at one dollar an acre, with not more than six hundred and forty acres to any individual ; or by homesteading, a quarter section being granted free on condition of three years' residence and cultivation. Again following United States example, in 1874 homesteaders were allowed to pre-empt an adjoining quarter section, that is, to secure a three years' option on it, entitling them to purchase it at the regular one dollar price, payable in instalments, and in 1876 tree claims were established, grants of quarter sections, conditional on the planting of one-fifth of the area within four years.

Fair success rewarded this energetic striving. The number of immigrants settling in Canada, some twelve thousand in the first year of Confederation, fluctuated between twenty-five and fifty thousand in the seventies. The highest point was reached in 1873, the year of the crest of prosperity. That year was also the first in which the number declaring their intention to settle in Canada exceeded the number passing through Canada to the United States ; not until 1880 did the balance incline again in favour of the United States. Of these settlers Ontario, with its more prosperous farming, its active industries, and its energetic immigration campaign, received the lion's share ; the Maritime Provinces were passed by. The day of the West had not yet come. Lack of transportation facilities and the more strenuous display of the attractions of the north-western states proved a serious drawback. The intending settler, say in 1873, had his choice of entering through United States territory by rail to Chicago and St Paul or by water to Duluth, thence by rail to Red

River points, and boat or stage to Fort Garry; or of making the journey through Canadian territory, by boat from Sarnia or Collingwood to Fort William, thence by the Dawson route maintained by the Dominion government, forty-five miles by wagon from Fort William to Shebandowan Lake, three hundred and ten miles broken navigation in open boats and steam launches to the north-west angle of the Lake of the Woods, and thence ninety-five miles in cart or wagon to Winnipeg—all for ten dollars, and 'board oneself.' In face of the tedious hardships of the Dawson route, and the blandishments of the American land agents along the alternative routes, settlers dribbled in. Winnipeg's three hundred people of 1870 had become seven hundred in 1871, fourteen hundred in 1872, and three thousand in 1876. Probably seven thousand immigrants entered Manitoba in 1877. The new settlers were chiefly from Ontario and the United States; few from the British Isles penetrated thus far. The beginning of the Continental invasion falls in this period; some two thousand Icelanders, driven forth by hunger and disturbing volcanoes, and seven thousand Mennonites from Southern Russia, eager to escape the military service their religion forbade, were aided and induced to colonize in Manitoba, where, after much tribulation, success crowned their strivings. But until the completion of rail connection between St Paul and Winnipeg in 1878, cutting a twelve-day journey to three, and raising the price of wheat in Manitoba from fifty cents a bushel to seventy-five, the western rush could not begin.

The Outward Flow

On the surface an average immigration of thirty thousand a year would seem to imply expanding industries and rapid opening up of the country. There was, however, grave cause for misgiving. Relatively to the United States, Canada received few of the world's surplus men: in the first ten years of Confederation Canada attracted only one-fourteenth as many immigrants as the United States in all, and only one-sixth as many, including transients, from the British Isles. More serious was the fact that many of the

immigrants soon drifted across the border. Still more serious was the large and growing exodus of native-born Canadians, a remarkable movement, which for over thirty years was the skeleton in the Canadian closet. No official Canadian computation of this emigration exists ; the United States official count of Canadian immigrants crossing the border was proved to be grossly inaccurate, and was discontinued in 1886. The most trustworthy sources are the census statistics of the two countries, which show that natives of British North America resident in the United States increased from a quarter million in 1860 to a half million in 1870, and somewhat less than three-quarters of a million in 1880, while during the latter decade natives of the United States in Canada increased only from sixty-four to seventy-seven thousand. A melancholy satisfaction was received from the contemplation of the success achieved by the sturdy worth of these lost sons, while on the other hand Canada recognized the debt she owed to the United States for many of her ablest leaders in the industrial field, notably in lumbering and machinery-manufacturing in the earlier years, and in railroading in a later era.

The causes of the greater drawing power of the United States, as regards both the European and the Canadian, were clear, and for the time irremediable. The free lands of the United States were easily accessible and seemingly limitless, those of Canada difficult of access and belied by rumour. In the republic settlement rolled westward unhindered until the arid plateau of the Far West was reached ; in Canada the lakes and the rocky wilderness to the north long interposed a barrier against which the incoming tide beat and was deflected south. To the Canadian the fascination of the great city, its varied business and professional opportunities, drained rural Nova Scotia or rural Ontario as they drained rural New Hampshire and rural New York. Interprovincial migration was as yet infrequent. ' Boston is a few hours' trip,' declared a Nova Scotia representative at a Dominion Board of Trade meeting, ' but to come to Toronto one needs to mortgage his farm to pay the fare.' To the European emigrant weary of feudal oppression, there was

magic in the name of a republic; for many a year Canadians protested that their government was freer and more efficient than their neighbours', but protested to an unheeding or an unbelieving world.

Canal and Railway Building

The immigration question and the land question, it has been implied, were inseparably bound up with the problem of procuring transportation facilities. The vacant wastes could never be peopled, the scattered provinces linked in common interest, nor the markets of the world brought within cheap and convenient reach, except by extensive building of road and canal and railroad. Private enterprise did much to provide the facilities required, but halted at the greater tasks. The bitter experience of English shareholders with the Grand Trunk fiasco, wherever the responsibility for failure lay, made capital fight shy of Canadian railroad schemes; reasons of state forbade the development which in time private efforts would have effected—opening up communication through United States territory; the all-Canadian routes east and west did not promise rich immediate returns. Perforce the state was left to take the initiative and the burden.

In a previous generation canal-building had been the notable public achievement. The existing canals were maintained and improved after Confederation, but no extensive innovations were made, the chief advance being the deepening of the Welland to twelve feet. Proposals for constructing the Baie Verte canal, to connect the Bay of Fundy with the Gulf of St Lawrence, were widely discussed through the seventies, but the scheme was abandoned in favour of a ship railway which swallowed up much private and public capital before it was at last pronounced impracticable. The existing canals had not been as successful in attracting the trade of the western states as had once been hoped, and in any event canals could be of little use in linking Nova Scotia and British Columbia to Central Canada. The dream of utilizing the water stretches of the western plains clung per-

sistently to many Canadian public men, notably to Mackenzie, but time proved its futility. The day of the railroad had definitely come. In the east the patchwork beginnings of the Intercolonial were taken over by the Dominion government, and the road pushed to completion in 1876, forty weary, hope-deferred years after the provinces first began to fill the dusty pigeon-holes of the Colonial Office with prayers for aid in its construction. In the west the vague aspirations for a transcontinental line had taken practical shape when its construction within ten years was made a condition of the entrance of British Columbia into the Union in 1871. The dramatic story of that road, the fluctuation between construction by the state and construction by a state-aided private company, the merits of the final bargain, the engineering difficulties met and conquered, the reputations made or blasted in the bargaining and building, is told elsewhere. Here it is sufficient to note the chief stages in its progress—the failure of the Allan project of 1873 after the Pacific Scandal revelations; the continuation of the surveys, and the construction by the Mackenzie government of the Pembina branch from Emerson to St Boniface, connecting Winnipeg with St Paul, and part of the road from Lake Superior to Winnipeg; the temporary continuation by the Macdonald government of the policy of state construction; the decision to transfer the task to a private company; the consequent bargain made with the Canadian Pacific syndicate in 1881, and the energetic completion of the road in 1886.

Commercial Legislation

Important legislation affecting commerce was put on the statute-book in these early years. The Rose-King proposals of a bond-secured bank currency came to nothing, but the banking act passed in 1871 gave the security desired without sacrificing the unique economy and flexibility of the Canadian system; ten years later, after the bitter experience of bank failures in 1879, bank-notes were further secured by being made the first charge on the bank's assets. The clamour for the 'rag baby,' or irredeemable paper money, imported from

the United States along with the cry for protection, and linked in advocacy with it, failed to gather strength in Canada. A Dominion insolvency act was passed in 1869, intended to secure the two cardinal aims of bankruptcy legislation—equitable distribution of assets among the creditors, and final discharge of the debtor. Complaints of its abuse by fraudulent debtors led to amendments in 1875 abolishing voluntary assignments, making discharge optional with the court unless the estate realized thirty-three cents on the dollar—raised to fifty two years later—and regulating more stringently the powers and duties of official assignees. The law was cumbrous, and in the commercial crashes of the late seventies it was held responsible for much of the laxity and fraud that prevailed ; its critics would not accept amendment, but repealed the act entirely in 1880. Since that date the tradition that an insolvency act encouraged insolvency, objections from the farmers to being refused the privileges granted by the act only to ' traders,' and pressure from the banks, fearful of losing first claims, have prevented new legislation by the Dominion, though the provinces, exercising their partly concurrent power, have passed acts which for the most part prevent fraudulent preference, but cannot provide for the discharge of the debtor. In 1869 the patent law was amended by abolishing the requirement of one year's residence in Canada for obtaining a patent, and substituting a provision that the patent would be forfeited unless manufacture was begun in the Dominion within three years, or if importation by the holder of the title was continued more than eighteen months—periods reduced to two years and one year respectively in 1872. In 1873 the Joint Stock Act was consolidated, and operations by this increasingly important instrument facilitated.

The Farm : the Coming of Change

In the early years after Confederation farming in Canada was in a transition state. Grain-growing was less profitable than in the golden age of the fifties and sixties, when the open United States market and the Crimean War had given

the newly cleared lands of Central Canada rapidly rising value. It had not yet come to be as profitless as in the dark days of the eighties and nineties, when from all quarters of the globe an avalanche of grain poured upon the central markets and forced down prices in its sweep. The adoption of mixed farming was becoming inevitable, and the beginning or the continuation of the development of the live stock industry, the beginnings of dairy industry and fruit-farming mark this period, and give it importance as the forerunner of the more extended efforts that were to follow.

The forces available for production grew; the four hundred and eighty thousand engaged in farming in the four original provinces in 1871 had become six hundred and twenty thousand in 1881, and newer sections held nearly forty thousand more; the land occupied increased from thirty-six to forty-one million acres in the four provinces, and forty-five in the whole Dominion, while the land improved rose from seventeen to twenty and twenty-two million acres respectively. Comparatively little was done to increase the farmer's skill and knowledge of his craft; some voluntary associations, notably the Ontario Fruit-growers' and Dairymen's Associations, did useful missionary work, and in the central provinces the government supplemented their efforts, but, with the exception of the founding of the Ontario Agricultural College at Guelph in 1874, the state, federal and provincial administrations alike, gave as yet little leading. Enterprising pioneers, such as Farrington and Graham, Read and Ballantyne, rendered invaluable service to the dairying industry, while men like Cochrane and Brown, whose imported shorthorn herds were unsurpassed in the world, blazed the way for their less progressive fellows. Markets shifted. The abrogation of reciprocity checked the demand for live stock and animal produce, though not seriously affecting the trade in barley and oats. The development of transportation facilities opened up a new and profitable trade in shipping live stock to Great Britain, while the completion of the Intercolonial fostered interprovincial trade in foodstuffs.

The land west of the Great Lakes contributed little as yet to the world's markets. British Columbia showed relative

progress, especially in sheep and cattle ranching, the area in pasture exceeding the area under crop in this alone of the provinces; for the most part the Pacific province was still in the stage of gold and furs, sealskin and salmon shipping, the stage of the Alaska of thirty years later. In the valley of the Red River and of the Assiniboine and even the Saskatchewan, settlers were breaking the prairie, some endeavouring to imitate the bonanza farms of the states to the south in their ambitious working; wheat alone was grown, and not yet in quantities appreciably beyond home consumption; cattle were grazed on the open plains.

In the Atlantic provinces there was steady and healthy progress, alike in wheat-growing, stock-raising and fruit-growing. Yet agriculture continued to be a side-issue except in Prince Edward Island, and the three provinces were not even self-sustaining. Ontario and Western Quebec were still as all-important in farming as Nova Scotia in fishing, and of the two provinces Ontario continued to overshadow in commercial importance her neighbour's more self-sufficient economy. The distinctive features of these years were the remarkable expansion of the cheese and live stock industries. The time was ripe for a change. Exhausted lands and growing competition gave warning against reliance on wheat; the soil and climate of Ontario and the Eastern Townships were admirably adapted for both industries; the opportune importation of cheese factory methods from New York State, and the simultaneous development of steamship facilities for shipping cattle, along with a dearth in Great Britain from plague and bad weather, brought the favourable conjuncture. In 1873 not a beast was shipped from Canada to Britain; by 1880 more than thirty thousand cattle and one hundred thousand sheep were crossing the sea. In 1864 the first cheese factory had been started in Oxford County; by 1880 there were nearly five hundred in operation, shipping forty million pounds to the United Kingdom. In cattle there was much room for improvement in the quality, the great majority of farmers continuing year after year to raise common scrubs instead of good grades, but in cheese a high level was rapidly reached, as Canadian success at the Philadelphia Centennial

Exhibition in 1876, and the carrying off by Canadians of the sweepstake prizes at the New York International Dairy Fair in 1879, duly showed. Fruit-growing began to attain important dimensions, especially in the Niagara peninsula ; we find in 1888 seventy thousand baskets of peaches shipped from Grimsby ; but to the average farmer fruit continued an incidental by-product of his general farming, and not even a profitable by-product. In the words of the Ontario Agricultural Commission of 1881, words which have wider application than merely to Ontario and to fruit-growing, 'what has been planted has often been planted without judgment in the first selection ; what has been grown has been inferior because uncultivated and left to chance ; what has been marketed has been profitless because ill-gathered and damaged by insects or rough usage.' [1] But a better day was dawning.

The Growth of the Fisheries

The fisheries showed steady growth. In 1869 the commercial catch of the Dominion was estimated at a value of nearly four and a half million dollars, in 1872 at nine and a half, and in 1877 at twelve. The newly organized federal department of Marine and Fisheries exercised a helpful vigilance, proclaiming close seasons to protect the spawning fish, issuing licences specifying the kind and mesh of net allowed, and prohibiting obstruction and pollution of the rivers. Following up the private initiative of men like Wilmot of Ontario and Holliday of Eastern Quebec, the government undertook artificial hatching and distributing of fry on a large scale. On the Pacific coast the salmon-canning industry now began to attain commercial importance, the product exceeding one hundred thousand cases in 1878. In the frontier Great Lakes the yield of whitefish and trout had fallen with reckless overfishing. On the Atlantic coast, aside from the inevitable ups and downs of changing weather and varying runs, the staple fisheries expanded. In 1873 Lunenburg vessels began to sail to the banks for deep-sea fishing. The other notable feature of the Atlantic industry was the

[1] *Report of the Ontario Agricultural Commission*, 1881, p. 111.

growth of lobster-canning ; United States canners, after the exhaustion of the north-east coast fisheries, turned to the last great lobster fishery of the world, the Canadian coast, where such was the abundance that storms often cast up rows five feet high for long stretches of the shore. The canneries rapidly multiplied, and by 1878 their output exceeded a million and a half in value. The cod, the mackerel, the herring, the lobster and the salmon, were in this period the chief sources of the fisherman's prosperity.

The Mine : Undeveloped Riches

Mining made slow progress. Sometimes showy surface veins failed to hold depth and richness ; sometimes there was a lack of capital ; sometimes a superabundance of capital, wasted in extravagant preliminary outlay by managers of distant English companies ; sometimes there occurred the inevitable mining and metallurgical difficulties presented by new deposits ; sometimes transportation problems ; sometimes the barring of the markets by hostile tariffs. Gold production fell ; in British Columbia the discoveries of Ominica in 1871 and Cassiar in 1874 temporarily restored the declining yield, but the richer gravels were soon worked over, and after 1881 the placer output fell below a million a year. The Quinte district of Ontario absorbed half a million of hopeful capital in three years, but gave little back ; the alluvial diggings of the Chaudière dwindled, especially after 1876, and in Nova Scotia small claims, wasteful methods, and neglect of the low-grade ores, contributed to bring about a fall from twenty-seven thousand ounces in 1867 to ten thousand seven years later. Silver afforded one brief gleam of romantic success. In 1868 a rich silver-bearing vein was found on an islet at Thunder Cape, part of a location belonging to the Montreal Mining Company, which for over twenty years had heroically persevered in its endeavours to develop the silver and copper wealth of the north shore. But the shareholders had come to the end of their patience, and, rather than raise fresh capital, they sold their rights to an American company for a quarter million. In four days the

new owners took out sixty thousand dollars' worth of silver, and in 1884, when working was suspended, the Silver Islet had yielded them over three millions. A fall in the price of copper deterred development both in Quebec and at Bruce Mines; failing deposits, wasteful methods of concentrating, high freights, played their part, though the Bruce Mines directors endeavoured to reduce the latter cost by shipping in steamers direct from Lake Superior to Swansea. Production of iron was arrested by the depression in the United States and the consequent loss of the chief ore-market.

Coal had been hard hit by the repeal of the reciprocity treaty. From 1866 to 1872 Nova Scotia's coal had to face a tariff of $1.25 a ton, and from 1872 to 1894 75 cents; by 1872 the exports to the United States had fallen to one-third of their level in the era of reciprocity. Meantime new markets were being sought at home and in Ontario and Quebec, and gradually the lost ground was recovered. British Columbia, with a monopoly of the good coal on the Pacific coast, fared better, and home consumption and foreign shipments grew steadily. In Ontario the petroleum field continued to furnish spectacular developments. In 1868 the ruinous over-production, forcing prices of crude petroleum down to thirty cents a barrel, had been temporarily remedied by a bold stroke of Judge Higgins of Chicago, aided by Kingston and Hamilton capitalists; the combination bought the existing stock of oil, and bought or leased the fifty oil refineries, binding the refiners not to manufacture except for export. In 1869 the Oil Refiners' Association endeavoured to carry out the same policy, agreeing with the well-owners, who also organized an association, to share profits conditionally on receiving their whole output; production for home consumption was strictly limited, and every effort made to develop a foreign trade. Temporary success followed; by 1870 the home trade absorbed 2,700,000 gallons and the European markets 7,000,000. But the processes of deodorizing used were expensive and not entirely successful; in 1873 the discovery of deep-level oil in Pennsylvania, with flowing wells yielding their thousand barrels a day, of better quality for illuminating, though not for lubricating, purposes

than the Canadian oil, killed the export trade. The home market was protected by a duty of fifteen cents a gallon, offset in part by an excise tax of six cents, which had been imposed in 1868 at the instigation of the refiners' ring, to raise the price of the large stocks they had on hand, and which served later as a check on the production of rival refiners—'the only means they had of keeping one another honest.'[1] In spite of this and other expedients it was impossible to keep the association together, though throughout the seventies repeated endeavours were made to secure combined control either through the refiners or through the producers of crude oil : the industry fell to lower levels. Meantime the neighbouring salt industry had attained importance. The Onondaga Company of New York attempted in 1869 to crush out the rising Ontario industry, as it had attempted to crush out the Michigan development, by underselling. A clamour arose for protection, and the short-lived National Policy tariff of 1870 afforded this for a time ; then, without a duty, the men of Huron succeeded in facing and driving out their competitors, and even in 'dumping' in the United States in their turn. In salt as well as in oil, over-production led shortly to combination.

Manufactures : Expansion on Old Lines

The manufacturer shared in the nation's prosperity until 1873, and shared in the depression that followed. In the earlier years there was marked progress on established lines. The scale of operations grew steadily. Little foreign capital was utilized ; the rapid profits of existing businesses and the multiplying of banks eager for custom, provided the funds for expansion. 'There isn't a manufacturer of us all,' declared one of the most successful pioneers in the flourishing agricultural implement industry in 1876, 'who hasn't come up from five dollars.'[2] But in the later seventies manufacturers at best marked time. The industries which suffered most were those which depended on foreign markets, such as the

[1] E. D. Kirby, *Proceedings of Dominion Board of Trade*, 1873, p. 57.
[2] F. T. Frost, *Report of House of Commons Committee on Depression*, 1876, p. 120.

lumber trade, or which were exposed to the competition of English textile manufacturers, or United States hardware or furniture makers or jobbers ; or those in which high profits had tempted excessive domestic investment, such as the boot and shoe industry.

The working up of the products of the farm continued to hold first place in manufacturing activity. Flour-mills, distilleries and breweries rested on local supplies ; tanneries and woollen-mills found it necessary to supplement home by foreign materials of kinds not produced in Canada, the balance being redressed by the export of Canadian hides and long-combing wools. Good prices and exhaustion of land by incessant wheat-growing having induced Western Ontario farmers to turn to the cultivation of flax, linseed-oil mills started up to utilize the seed, and scutching-mills to work up the fibre. The most notable development in the utilization of farm products was the rapid growth of cheese factories in the central provinces, a movement already noted in the survey of agricultural progress ; as a matter of fact, cheese-making is as much a branch of manufacture as flour-milling, but its later divorce from the farm, its rural location, and its control frequently by co-operative societies of farmers, have usually led to its classification under farming activities. The pork-packing industry witnessed interesting changes. Slaughtering at the factory instead of at the farm became more general.[1] The invention of refrigerating processes made summer packing possible, and lengthened the packing year from four months to twelve. Canadian hogs, pea and barley fed, could not compete in cheapness with United States corn-fed products in the fat-pork-consuming lumber camps, and were too fat for the discriminating taste of the English market ; accordingly, pending the education of the Canadian farmer in the

[1] Evidence that 'Jungle' methods are not new in the world is found in a reference by a leading Canadian packer to the conditions prevailing before the coming of the practice of slaughtering at the packing-houses. 'The hogs are frozen and taken to the country stores, piled up like cordwood and gnawed by hogs, dogs, cats and rats. They are covered with dust and dirt, pitched about with no more care than cordwood, kept in a country warehouse for two or three weeks, sometimes months, and then are brought here by railway; and by the time they reach us they are more like carrion than human food.'—William Davies in *Report of Ontario Agricultural Commission*, 1881, p. 338.

raising of small lean bacon hogs in steady and sufficient numbers, Canadian packers imported United States hogs in bond, and exported hams and bacon to Great Britain.

Cotton-manufacturing prospered ; between 1867 and 1877 the number of spindles grew fourfold, makers of greys drove their English rivals out of the field, except in 'slaughter' markets ; mills were fitted up with dye-houses, and checks and coloured shirtings were added to the plain grey staple. The boot and shoe industry was transformed by the adoption of the M^c^Kay sewing process in place of wooden-pegging methods, which in their earlier days had seemed a wonderful advance.

Little metallurgical advance can be recorded. An experiment at Marmora in 1875 in the use of petroleum in smelting iron added variety to the list of failures. The ores of Eastern Ontario continued to be shipped across the lake to furnaces in United States border cities. In timber industries the most notable developments were afforded by shipbuilding. An important change came when ships were built for trade and not merely for sale ; Yarmouth skippers were seen in every port from Hamburg to Hong-Kong, and in proportion to population Nova Scotia led the world, not only in shipbuilding but in navigation. By 1878 the Dominion possessed over 1,300,000 tons registered shipping, ranking fifth among the nations. But already the climax had been passed ; the iron sailing-ship or steamship, more durable and entitled to lower insurance rates, and later the steel steamship, drove the wooden clipper from the high seas, and the chief industrial glory of the provinces down by the sea departed.

Commercial Relations with the United States

External trade relations divided attention with questions of internal development. In the early days of Confederation, with the memory of the Reciprocity Treaty of 1854-66 still green, foreign trade relations meant almost exclusively relations with the United States. Along the common three-thousand-mile border there were many points of friction where diplomatic oil was constantly needed. In the days of

provincial isolation and lack of home markets, admission to the markets of the United States seemed to the majority the only panacea for Canada's ills. The matters at issue between the two countries were threefold—fisheries, transportation, markets. In the earlier negotiations it was generally conceded that Canada held the trump cards on the first two points, and the United States on the third. The Dominion had rich treasures in her inshore Atlantic fisheries —the Pacific waters were still unharvested—within the three-mile limit, where her rights had never been questioned ; the shore fisheries on the United States eastern coast were nearly exhausted. The Dominion, joint owner of the Great Lakes and upper St Lawrence, and owner of the majority of the canals along the lake and river system, controlled the natural outlet of the products of the western states. In markets, on the other hand, the prevailing acceptance of the producer's standpoint brought general admission that the smaller nation had more to gain from reciprocal freedom of trade than the larger ; in Canada, however, the mutual gain was magnified, the indispensableness of the United States outlet denied, and the advantages to the republic proved by dubious reasoning as to favourable balances of trade ; in the United States the benefit of reciprocal entry of natural products was held to be entirely Canada's, and free admission of manufactured products essential to redress the balance.

Throughout the negotiations summarized in the accompanying table, the Canadian policy was definite and broadly uniform. It consisted in pressing hard the advantage in fisheries and transportation to purchase as good a bargain as might be in the markets. This policy is frankly summarized in the protest made by the Macdonald administration in 1871 to the British government against the acceptance of the Washington Treaty :

> The Committee of the Privy Council may observe that the opposition of the government of the United States to reciprocal free trade in the products of the two countries was just as strong for some years prior to 1854 as it has been since the termination of the Reciprocity Treaty, and that the Treaty of 1854 was obtained

Tupper Negotiations, 1887	Commerci
As in 1854-66. *Modus vivendi*, admitting United States ships to port and bait privileges on payment of licence.	As in 185
Settlement of bonding and canal issues.	Same.
'Not an offer of unrestricted reciprocity, but an unrestricted offer of reciprocity.' — Sir Charles Tupper.	Complete tween and Car tion of other r tion of on bord customs criminat United
Treaty.	

COMMERCIAL NEGOTIATIONS WITH THE UNITED STATES, 1854-1911

Subject	Reciprocity Treaty, 1854-66	Galt Negotiations, 1865	Galt-Howland Negotiations, 1866	Rose Negotiations, 1869	Washington Treaty, 1871	Brown-Fish Draft Treaty, 1874	National Policy, Statutory Offer, 1879	Tupper Negotiations, 1887	Commercial Union Proposals, 1887	Unrestricted Reciprocity Proposals, 1888	Foster-Thompson-Bowell Negotiations, 1891-92	Joint High Commission, 1898	Negotiations, 1905-11
FISHERIES	Reciprocal right to take and cure fish on Atlantic coasts, of United States north of 36°, and of Canada, New Brunswick, Nova Scotia and Prince Edward Island.	As in 1854-66.	As in 1854-66.	As in 1854-66.	As in 1854-66, except that United States coast fisheries were opened only north of 39°. United States to pay money compensation for superior value, if any, of access to Canadian fisheries.	As in 1854-66; fisheries arbitration to be dropped. Joint commission for protecting and propagating fish in joint inland waters.	1871 treaty still in force.	As in 1854-66. *Modus vivendi*, admitting United States ships to port and bait privileges on payment of licence.	As in 1854-66.	As in 1854-66.		Same; and settlement of Bering Sea seal question.	Commission for regulation of border fisheries (1908 draft treaty). Reduction of *modus vivendi* licence to nominal fee of one dollar (1911 Reciprocity negotiations). Hague Arbitration of Atlantic fisheries dispute, 1910. Settlement of Pacific seal dispute, 1911.
TRANSPORTATION.	Canada gives free navigation of St Lawrence and use of canals on same terms as to its own citizens; United States grants free navigation of Lake Michigan, and agrees to urge States of New York and Michigan to open state canals on equal terms.	As in 1854-66. Canada also to improve canals; inland waters to be made common highway, maintained at joint expense. Reciprocity in coasting trade and in bonding transit trade.	As in 1854-66, and canal improvement.	As in 1854-66.	Canada gives free navigation of St Lawrence for ever, and use of canals on equal terms during life of treaty; United States grants navigation of Lake Michigan and St Clair Flats canal for term, and of Alaskan rivers for ever; agrees to urge state governments as before. Reciprocal bonding privileges.	Same: Canada agrees to enlarge Welland and St Lawrence canals, and to build Caughnawaga canal. Reciprocal coasting trade on lakes.	1871 treaty still in force.	Settlement of bonding and canal issues.	Same.	Same.	Same. Reciprocity in coasting trade and in salvage.	Same. Same.	Joint commission for regulation of international traffic rates proposed, 1910. Waterways Commission to control questions regarding navigation, power, and sanitation in boundary waters, established 1905-9.
MARKETS AND TARIFFS.	Reciprocal free admission of nearly all natural products, of farm, forest, mine and sea. Discrimination against United Kingdom and other countries on some minor commodities.	As in 1854-66, except that Canada is to consent to imposition by United States of customs duties equivalent to excise levied. Certain manufactures reciprocally free; also free from England. On liquors, tobacco, and other goods to be agreed upon, the two parties to assimilate rates of duty, and divide revenue.	Same. Assimilation of liquor and tobacco duties, to prevent smuggling.	Same. Same. Assimilation of certain customs and excise duties.	Fish and fish-oil reciprocally free.	Reciprocal free admission of natural products, also of specified manufactured articles, by sliding-scale reduction of existing duties; Canada to grant same terms to United Kingdom.	Reciprocal free admission of specified natural products; renewing, with variations, offer made in first Confederation tariff.	'Not an offer of unrestricted reciprocity, but an unrestricted offer of reciprocity.' — Sir Charles Tupper.	Complete free trade between United States and Canada; assimilation of tariffs against other nations; abolition of custom-houses on border; division of customs revenue; discrimination against United Kingdom.	Complete free trade between United States and Canada; no assimilation of tariffs; maintenance of custom-houses; no division of customs revenue; probably discrimination against United Kingdom.	Renewal of the treaty of 1854-66, with the modifications required by the altered circumstances of both countries, and with the extensions deemed by a joint commissioo to be in the interests of Canada and the United States. No discrimination against United Kingdom.	Same. Preferential tariff on statute-book.	Payne-Aldrich maximum tariff negotiations, ending in exchange of United States minimum for Canadiao general tariff, 1910. Reciprocity in bulk of natural products, on free list or reduced duties; reduction of duties on specified list of manufactures; recognition of Canada's preference to United Kingdom; proposals defeated, 1911.
DURATION.	Ten years' treaty, plus one year's notice.	Concurrent legislation, terminable at will.			Ten years' treaty, plus two years' notice.	Twenty-one years' treaty, plus three years' notice.	Concurrent legislation.	Treaty.			Treaty.	Treaty.	Concurrent legislation in latter case; otherwise by treaty.

> chiefly by the vigorous protection of the fisheries which preceded it, and that but for the conciliatory policy on the subject of the fisheries, which Her Majesty's Government induced Canada to adopt after the abrogation of the Treaty of 1854 by the United States, it is not improbable that there would have been no difficulty in obtaining its renewal.[1]

A brief review of the negotiations during this period, including for continuity's sake a year or two before Confederation, shows the tenacity with which this policy was followed by Canadian negotiators, of whichever section or party, and how closely the questions of fisheries, canals and markets were connected.

Canadian Efforts to Renew Reciprocity

When in 1864 the cumulative effect of anger at British and Canadian sympathy with the South, rising protectionist sentiment, pressure of internal taxation, aggrieved sectional interests, and the absence from Congress of the low-tariff southerners led the United States to give notice of the abrogation of the treaty of 1854 at the earliest possible date, March 17, 1866, the colonial ministries somewhat tardily prepared to meet the emergency. In 1865 four members of the cabinet of the Province of Canada went to England to confer with the British government as to federation, defence and reciprocity, and secured the promise of the good offices of the British ambassador at Washington. In September of the same year representatives of all the North American colonies met at Quebec, forming the Confederate Council on Commercial Treaties. After making arrangements for dispatching a commission to the West Indies and South America to find a new outlet for their threatened trade, they drew up resolutions in favour of a reciprocity treaty, with any reasonable modifications the United States might urge. In November A. T. Galt, minister of Finance in the Canadian coalition cabinet, carried on negotiations at Washington,

[1] Correspondence on the Treaty of Washington, *Canadian Sessional Papers*, 1872, No. 18.

informal and tentative, but significant of the length the government was willing to go, or at least to discuss: they covered reciprocity in fisheries, canals, coasting trade and exchange of natural products, subject to imposition by the United States of customs duties to balance the heavy internal revenue tax levied on home-grown products. While Britain's interests were guarded by providing that certain manufactured goods, to be free between the two countries, were to be free when from Britain also, Galt contemplated, so far as liquors, tobacco and other goods were concerned, a measure of commercial union, with assimilation of tariffs against transatlantic imports and equitable division of receipts. The agreement was to be enacted by concurrent legislation, which, in the view of George Brown, 'would keep our people dangling from year to year on the legislation of Congress, looking to Washington instead of to Ottawa.' Galt withdrew his memorandum, but Brown, not appeased, resigned from the cabinet. The following month, January 1866, Galt and W. P. Howland, representing Canada, Smith for New Brunswick and W. A. Henry for Nova Scotia, opened negotiations in Washington with the Ways and Means Committee of the House of Representatives. Agreement was reached on the principles—practically the *status quo* in fisheries and transportation, with customs duties to balance internal revenue taxes—but in the detailed application the House Committee showed by the excessive rates proposed, ostensibly to balance excise duties, not less than by the free list suggested, burr millstones, grindstones, rags, gypsum and firewood, that they were indifferent whether or not a bargain was struck. The provincial delegates had no choice but to decline, and negotiations ended.

To this rebuff the Province, and later the Dominion, of Canada gave a soft answer. 'The provinces,' according to George Brown, 'believed in the practical good sense of the United States people, especially with such a balance-sheet to look back upon as the results of the treaty of 1854 present. They assumed that there were matters existing in 1865-6 to trouble the spirit of American statesmen for the moment, and they waited patiently for the sober second thought which

was sure ere long to put all things right.'[1] The privileges granted the United States under the treaty were continued after the treaty : the St Lawrence and Canadian canals remained open to American commerce—incidentally because Canada wanted nothing less than to lose her share of the carrying trade of the western states ; nearly all the articles free by treaty were allowed to come in still duty free, as for the most part they had been free before the treaty was made ; and finally, unwillingly, and only in deference to the Colonial Office, the freedom of the shore fisheries was continued on payment of a licence fee, gradually increased from fifty cents to two dollars a ton—a payment which many of the United States vessels using the fisheries refused to make.

Meantime negotiations continued. In 1869 Sir John Rose, minister of Finance in the Macdonald administration, renewed practically the Galt terms of 1865 ; it was later alleged by L. S. Huntington, on first-hand authority, that Rose agreed to enter a zollverein discriminating against Great Britain ; Sir John Macdonald denied the statement, but the details of the negotiations and the cause of their failure are shrouded in mystery. There followed a brief experiment in retaliation in the imposition in 1870 of duties on coal, salt and breadstuffs, but Canadian public sentiment was as yet averse to protection of natural products, and while Sir John Macdonald was in Washington his colleagues in the cabinet abandoned the experiment, and even joined in voting down a resolution to retain the duties to serve as makeweights in the pending negotiations with the United States. These negotiations, originating in Canada's suggestion of a conference to determine the exact rights of each country in the shore fisheries under the convention of 1818, had been widened to provide for a settlement of the Alabama claims, then straining relations between the United Kingdom and the United States. Sir John Rose had been active in the negotiations leading to the establishment of the Joint High Commission agreed upon, and Sir John Macdonald was appointed one of the five British commissioners ; so far was Canada's share in the control of her foreign relations recog-

[1] *Memoir on Proposed Reciprocity Treaty*, 1874.

nized. So far, but so far only ; Sir John Macdonald, fighting manfully for a settlement on the orthodox lines of free fisheries and canals in return for free markets, received little backing from his colleagues, who, in his classic phrase, ' had but one thing in their minds, to go home to England with a treaty in their pockets settling everything, no matter at what cost to Canada.' Reciprocity in trade, in coasting privileges and in registration of vessels was summarily rejected ; Canada's claim for redress for the Fenian raids was not even considered ; the fisheries question was settled by itself, each country opening its fisheries and its markets for fish and fish-oil, with provision for a money compensation to Canada to be determined by arbitration, to balance the greater privileges she thus offered. The settlement was greeted by a storm of opposition in the Dominion ; the Maritime Provinces doubted the possibility of securing adequate money compensation, the western provinces deplored the loss of their lever for prizing open the United States market, all denounced the unfairness of rejecting the claims in respect of the Fenian raid. There was, of course, much mere party manœuvring behind the criticism, but the cabinet itself, in Colonial Office correspondence, was foremost in denunciation. Finally the Canadian parliament accepted the arrangement, Sir John Macdonald soundly urging sacrifice in the interests of the Empire.

When the Mackenzie administration came into power, it found it had inherited the duty of proceeding with the fisheries arbitration. Consistently with settled tradition, it decided to attempt to reopen the whole question of commercial relations, and secure open markets instead of an uncertain and probably irritating money payment. Accordingly in 1874 George Brown was appointed by the British government joint plenipotentiary with Sir Edward Thornton, ambassador at Washington, and negotiations were opened with the State department. Brown had at last the task his ambition craved and his talents warranted. However awkward a cabinet colleague, however extreme a political partisan, he stood out in these negotiations as the ablest and sturdiest in the long line of Canada's commercial ambassadors.

He began by preparing a strong memorandum, showing most convincingly the benefits which the former reciprocity treaty had brought to the United States, and disabusing the popular mind of the impression that Canada had nothing left to offer ; he made it clear that Canada could and did prosper without reciprocity, but would prosper more with it. His newspaper experience enabled him to utilize to the full the forces of advertisement, with such success that hostile critics on both sides of the line had to fall back on the baseless charges of secret service funds to explain the backing won from leading United States journals. A draft treaty was drawn up by Brown and Secretary Fish, and submitted to the Senate for an opinion, but that elusive body adjourned unexpectedly early without taking action ; in the following session the proposal failed to secure assent, preoccupation with the currency question combining with the staple anti-reciprocity forces to prevent ratification.

The proposed treaty was as loudly discussed in Canada as the Washington Treaty ; it met strong criticism not only in partisan quarters but from important commercial and manufacturing interests. Yet, looking back to-day, one must consider the Brown-Fish project the most advantageous put forward by responsible statesmen in the long line of reciprocity negotiations. Fisheries and natural products were settled as in 1854 ; the coasting trade of the lakes was thrown open ; the reciprocity of river and canal navigation arranged by the Treaty of Washington was continued, and Canada agreed to enlarge her canals—a measure at least as much in her own behoof as in that of the United States, and bitterly attacked by New York State forwarding interests. An important list of manufactured goods was to be free, chiefly textiles and manufactures of iron and leather ; the reduction of duties was to be spread over three years, according to a sliding scale agreed upon. Probably some temporary difficulty would have been met by Canadian manufacturers in competing in some of the commodities covered, especially those involving heavy capital expenditure ; but given a twenty-four years' assurance of the United States market, given the continuance of Canada's lower duties on raw

materials, and there is not a shadow of doubt that British capital would have poured in to seize the unique opportunity offered by this combination of low cost of production and access to the markets of the whole continent, and would have made Canada the manufacturing centre of America. There was no discrimination against British goods, no pooling of revenues, no sacrifice of national control of fiscal policy. The valid objections to the treaty—besides the fatal objection that it was too fair to Canada to find favour with the United States Senate—were the loss of revenue involved, specially serious in the lean years just beginning, and the administrative difficulties involved in the free admission into Canada of treaty commodities from the United Kingdom and the most favoured nations ; neither difficulty need have proved insurmountable. The treaty failing, the fisheries arbitration was resumed, and, thanks to the insistence of the Mackenzie government in appointing an able Canadian representative, Sir A. T. Galt, Canada received an award far beyond her earlier expectations.

The 'sober second thought' of the United States was slow in coming. Many reasons combined to make all Canada's proposals come to nothing. There was the indifference of a preoccupied, prosperous, self-satisfied and provincial people. There was the strength of protectionist feeling, the hostility of special interests, lumber or shipping or mining, and the hostility of protectionists in general, opposed to any breach in the tariff wall, and especially one made at the expense of the farmers, who must at all costs be kept in the belief that they too shared in the benefits of 'protection all round.' There was the doubtless genuine feeling that any bargain Canada proposed was sure to be one-sided ; it is curious to observe the persistent belief in each of the countries concerned that its case was rooted in immutable justice, but that its negotiators were as babes in the hands of the wily and unscrupulous representatives from across the border. Political factors were not wanting—the traditional animosity against Great Britain, and the delusion that denial of a market would starve the Dominion into seeking political union ; the belief that annexation was Canada's manifest destiny was strongly held by men of the prominence of Sumner

and Sherman, and had sometimes met half-assent from British cabinets of pre-imperialist days. Sentiment there was for a zollverein, but for any less complete measure of reciprocity little as yet except in some commercial centres west and north, and accordingly all negotiations came to nothing.

Early Tariff Policy

Meantime the tariff policy of Canada, of which the question of reciprocal relations with the United States was but one special phase, was undergoing a marked and significant change, a change in its turn inseparably connected with the trend of trade, the ups and downs of the commercial barometer. The Dominion began its fiscal career under the slightly modified tariff of the old Province of Canada. After a period of low revenue tariffs, William Cayley and Galt had introduced a distinctly protective element into the Canadian budgets of 1858 and 1859, the prevailing rate adopted in the latter year reaching the unprecedented level of twenty per cent. While the authors of these changes were careful to repudiate the policy of out and out protection, they declared their satisfaction if duties absolutely necessary to meet revenue needs should incidentally encourage home industry. This policy, known in a phrase of Hincks as 'the policy of incidental protection,' is well summarized in Galt's budget speech of 1866 : 'The policy of this country has been to make every article of natural production imported into the province free, and for revenue purposes to impose duties on all those manufactured articles which it was thought were able to bear the burden, affording at the same time an incidental amount of protection to our own manufacturers.' For seven years, barring some minor freer trade variations in 1862, this tariff policy prevailed without substantial change. Then, on the eve of Confederation, it fell to the lot of Galt to introduce the tariff which was to form the basis of the Dominion's policy, and which was destined to endure in its main features until 1879.

With his accustomed clearness, Galt, in introducing the

budget of 1866, laid down the principles which had guided his action ; the general endorsement of contemporary assent and later acceptance makes it important to note what those principles were. Canada, Galt declared, had come to the parting of the ways ; she must choose between the American system of high protection and the English and European system of revenue duties. If the Canadians were to copy in every respect the commercial policy of the United States, they might as well join political forces also ; but if, as all hoped and determined, two separate and distinct nations were to be built up on this continent, it would be well to adopt distinct fiscal systems. Cut down duties on manufactured goods—unfortunately they could not at present be entirely abolished—make Canada a cheap country to live in and a cheap country to produce in, give Canadian manufacturers low taxes, low labour cost and cheap raw material, and instead of being given control of the single and limited market of Canada, they would be enabled to compete on favourable terms in the markets of the world. Immigrants and capital would flow to Canada rather than to the United States. Further, such a reduction of duties would clear the path to Confederation by assimilating the tariff to the lower rates of the Maritime Provinces, and would be more consistent with the relations and obligations of Canada to the mother country.

In this tariff of 1866, adopted next year in substance as the first tariff of the Dominion, the rate of duties on the great bulk of manufactured articles was reduced from twenty and twenty-five to fifteen per cent. The duty on tea and the customs and excise duties on spirits were increased. Manufactures were encouraged by reductions in duty on semi-manufactured iron, and by the addition of certain manufacturers' materials to the already long free list. With some inconsistency, farm animals, butter and cheese, lard and tallow, wheat flour and coarse grains, were subjected to a low duty, mainly for the first time, as a measure of retaliation against the United States, and authority was taken by the government, though not utilized for two years, to impose an export duty on sawed logs to offset the effect of the imposition by

the United States of higher duties on lumber than on logs—an expedient fertile in precedent. On the whole, in spite of the freer trade tendencies of this revision, the tariff remained distinctly protectionist in effect, though, as compared with later developments, the range of articles covered was limited, the schedules simple, and the rates low.

The Ebb and Flow of Prosperity

Later tariff developments, it has been noted, turned upon fluctuations in the country's commercial prosperity. The period from 1867 to 1879 nearly corresponds with one complete trade cycle, from prosperity through depression to prosperity once more. It had come to be expected, with half-fatalistic resignation—and the expectation doubtless helped to bring the prophesying true—that the commercial crises which had disturbed the world in 1816, 1825, 1837, 1847 and 1857, would continue to develop at ten-year intervals. Canada, for all its isolation and its far from complex trade and credit structure, could not entirely escape the effect of these world-shaking movements.

The first two years of Confederation were years in which industry and commerce marked time. In England the effect of the Overend-Gurney panic of 1866, following reckless expansion of the newly enfranchised joint-stock company, was still felt. In the United States there had come a brief halt after the outburst of optimism and enterprise which marked the close of the war. In the Dominion itself time was required for readjustment after the abrogation of reciprocity. But the depression was not serious or prolonged, and soon there began the hectic prosperity of the years 1869-73, years which witnessed in the United States practically a doubling of the railway mileage, in the United Kingdom a doubling of the price of iron and coal, thanks to America's and war-hampered Europe's abnormal demands, and in Germany, after the close of the war and the receipt of the French milliards, an outburst of speculative activity unparalleled in its history. In this growth Canada had its modest share. The chartered banks, strengthened by the

elimination of the Upper Canada and the Commercial, grew in number and activity ; nineteen new banks began business between Confederation and 1874 ; the total capital grew from thirty millions in 1868 to sixty-six in 1876—a total, it is noteworthy, not again attained till a quarter-century had passed —and discounts increased in even greater proportion. Railway mileage in operation doubled in the same period ; exports were more than half as great again, and imports advanced even more rapidly. Government revenues followed suit, increasing from thirteen millions to twenty-four in 1874. Much of the increase in values was nominal, due to rise of prices, but much was due to increased volume of trade.

This prosperity was the more welcome because of the fears which had been felt on all sides of the depressing effect of the abrogation of the reciprocity treaty. Canadian and United States observers alike were astonished at the success with which the Dominion recovered from the sudden blow. The success was due to two factors : the finding of new markets, interprovincial and British, and the retention in great part of the United States market in spite of tariff bars. In seven years exports to Great Britain doubled, the most notable increase being in agricultural, animal and forest products ; the rapid development of the cheese industry, the extension of steamship facilities, the coincidence of bad harvests in the United Kingdom and good harvests in Canada, the sharp rise in prices, all tended to swell the volume and value of the transatlantic trade. In trade with the United States Nova Scotia was the hardest hit, her exports of coal and fish being greatly reduced, though the practice of selling the catch to New England fishing-boats, later to be entered as American-caught, lessened the blow. Wool suffered from rising duties and falling demand now that uniforms were no more required, and the cotton-fields of the South were again under the hoe. In lumber and barley, in which Canada for the time had a quasi-monopoly in the markets of the eastern states, the exports rapidly increased. The trade in wheat and flour had been, in the phrase of an official United States investigator, ' a commerce of convenience rather than of necessity,' both countries producing a surplus : the Maritime Provinces

had imported wheat and flour from the eastern states, sometimes of Ontario origin ; after the repeal this market was largely supplied direct by Ontario, though at some increase of price. Oats and peas and oat-fed stock Canada continued to export ; Indian corn and corn-fed hogs she continued to import. In the five years after abrogation the United States imported goods of practically the same value as in the five years before abrogation. The fact is that popular opinion has exaggerated the extent to which the absorption of the United States in the war struggle created conditions abnormally favourable for Canadian producers during the treaty's operation. The westward rush of immigrants to the free homesteads offered on the prairie, and the invention of labour-saving machinery, largely filled the gap made by the absence of the hundreds of thousands of producers at the front.[1] And though supply increased with the return of the soldier to the plough, demand out-footed it ; expansion was rapid on all sides ; the southern states were in the market once more ; the trade-disturbing fluctuations in the premium on gold had ended. Channels of trade had been worn deep in thirteen years of free intercourse, and tariff walls could not entirely check the current.

The gleam of prosperity was brief. Over-speculation brought its speedy nemesis. The crash was worst in the United States ; in September 1873 there came a series of colossal failures of banks heavily involved with expanding railroads ; bankruptcy succeeded bankruptcy—five thousand the first year, ten thousand in 1878 ; industrial depression followed financial panic ; demand shrivelled far below the output of the new establishments into which domestic and foreign capital had been poured ; factories closed by the thousand, and workmen were thrown out of employment literally by the million. Germany entered the worst crisis of its history hitherto, and in Austria the crash on the Bourse preceded the United States panic. France, with its sounder credit basis, suffered less, but Great Britain

[1] See in Fite's *Industrial and Social Conditions in the North during the Civil War*, a graphic picture of the remarkable prosperity and even increase in luxury in the North in this period.

experienced a paralysing reaction after the years of fevered activity.

Canada could not escape the maelstrom. Her shipping ceased to find employment in the foreign carrying trade, and returned to cut into the home coasting trade or lie idle at the wharves of Quebec or Halifax ; the lumber industry, second only in magnitude to the agricultural industry, and especially important in the ready money it circulated and the wide employment it afforded, stimulated as it had been into rapid expansion by high prices and big profits, found the eastern United States market suddenly fall to little with the general cessation of building, and found that little perforce shared with increasingly aggressive competitors from Michigan. The malady spread, and soon production, trade, finance, exports and imports all approached a dead level. Then began six years of stagnation and hope deferred, making the heart sick. In Canada there was little of the financial panic witnessed in the United States, little too of the widespread shutting down of mill and factory. It was a time of forced economies, of vanished profits ; what actual failures there were, and they were many and great, were mainly in commercial rather than in industrial circles. It was, in fact, very largely a traders' depression. There was no question that one of the foremost factors in the trouble was the excessive increase in numbers and activity of middlemen in Canada. Reckless increase of importations, especially of dry goods, together with the growth of banks competing for discounts, led to the multiplication of small retailers without capital or experience, and the granting of dangerously long credit : a commercial agency reported in 1869, perhaps with exaggeration, that there were more places selling dry goods in the town of Chatham, Ontario (population under six thousand) than in the city of Detroit. The consequence is seen in the list of failures in these years of depression, failures in which dry goods and general merchants, hardware dealers, lumber merchants and grocers led the van. This over-importation, for which English manufacturers and Canadian wholesalers were largely responsible, was supplemented after the depression had begun by the dumping of the surplus

products of American manufacturers, or rather American jobbers. Prices fell much more rapidly in the United States than in Great Britain, and this general fall, together with the occasional utilization of the Canadian market as a 'slaughter market,' in the phrase of the day, to avert still further fall at home, led to large importations at prices against which Canadian manufacturers found it difficult to compete. It is significant, however, that the most serious failures among the manufacturers were in the heavily protected boot and shoe industry; domestic over-production in highly protected industries was at least as marked as over-importation in industries with lower protection.

The Rise of the National Policy

Depression brought the fiscal issue to a head. For a few years prosperity had silenced tariff discussion; the policy of cheap living, cheap production, and so-called incidental protection held the field. Then the lean years came, and open protection had its day. With the political bearings of the tariff controversy we are not here directly concerned—the shifting and sail-trimming of politicians, the uncertainty as to which party would first hoist the banner of unqualified protection, the gradual accentuation of opinion as differences of degree hardened into differences of kind. There was much haziness in the public mind, much uncertainty as to future trade relations with the United States; much unwillingness to abandon the comfortable ostrich compromise of 'incidental protection'; the political parties did but reflect public hesitancy. It is more pertinent to review the forces making for change in public opinion.

These forces were both political and economic, both individual and national; there was the blending, common to all popular movements, of narrow advocacy of self-interest and broad zeal for the country's welfare. The manufacturing interests, especially of Ontario, were organized and aggressive. Each manufacturer saw clearly the gain of a closed market and only dimly the indirect loss of dearer raw materials and higher cost of living, or, if seeing the loss clearly, hoped that

a broad view of national interest would keep his raw material free.[1] The Dominion Grange, then an important though hardly representative farmers' organization, took the same view of the desirability of controlling the local market.

Example was powerful. Britain, it is true, still clung to free trade, in fact, had only in 1860 swept away the last vestiges of effective protection, but fair trade criticism was growing. Europe had halted in following Britain's lead. The United States—till the crash came in 1873 and after—was prosperous beyond all rivals, extending its factories, filling its western lands, drawing capital and endless streams of immigrants from Europe and from Canada itself; and the United States was protectionist beyond all rivals. Popular logic questioned little whether American prosperity was due to protection or existed in spite of it, or whether the thinly settled and as yet disjointed Dominion could bear commercial isolation as well as the vast, compact, populous free trade area of the republic. Canada itself, it was urged, with equal disregard of modifying conditions, had never prospered as she did under the Galt-Cayley tariff, from 1858 to 1866, the old twenty per cent tariff of blessed memory under whose fostering shelter the boot and shoe industry and the agricultural-implement industry had grown to strength and cheapness, the tariff which had created vested interests, protesting against neglect.

The home market must be preserved. Conviction grew of its importance and of its peril. Granted that the cheap living and the cheap production of free trade were necessary for success in foreign markets, what foreign markets were to

[1] W. W. Ogilvie, protectionist: 'I am a miller, and wheat is my raw material. . . . I am an out-and-out protectionist, but I cannot stand by and have my raw material protected, *for that is carrying the principle too far.*'—*Proceedings, Dominion Board of Trade*, 1876, p. 173.

W. J. Stairs, free trader: 'If there is one thing above another in a civilized country which ought to be free, it is fuel and breadstuffs.' (Interruption: 'Why not sugar?')

Stairs: 'The gentleman mistakes my argument on sugar. Mind, I never used the word 'protection.' Surely you can have a fostering care over an industry without protection. (Uproarious laughter.) . . . I take the wholesome middle course . . . which I particularly urge, to favour and foster the refining of sugar . . . *which we began manufacturing seven years ago.*'—*Ibid.*, 1877, p. 120.

be had ? The United States, which proximity and similarity of tastes and conditions made the natural outlet, was hopelessly shut out ; Britain had the advantage of a long start, cheap labour and cheap money ; other markets were inaccessible, what with tariff walls and what with distance and lack of connections. Instead of seeking this shadow, the solid substance of the home market, familiar, convenient, certain, should be secured. If the Canadian manufacturer could not maintain his hold on his own market, what chance did he have of winning others ? And his hold on this market, it was urged, was in danger. American competition grew steadily more aggressive and more effective. The artificial protection, given the Canadian producer by the war diversions and the war taxes and green-back vagaries of his southern rival, was ending. The scale of production and the degree of specialization grew rapidly in the United States, and as they grew costs fell. Then came the panic and depression of 1873, and the rising tide of American competition became a flood ; Canada was made a sacrifice market, a slaughter market in the fashionable phrases of the day ; American houses dumped their surplus into Canada, consigning goods to be auctioned at any price, sending travellers to follow Canadian drummers and cut any rate offered. Some Canadian producers alleged that the slaughtering was part of a deep-laid plot to crush their rising ambitions, but the majority found in it but the natural result of flooded markets and tight money, and, when possible, Toronto made Buffalo in its turn a slaughter market. Naturally it was against American manufacturers and jobbers that complaint was chiefly directed, but English firms came in for their share. The chief cause of the depression, according to one of the foremost authorities in the wholesale trade, lay in the recklessness with which English firms consigned their wares, especially dry goods, to Canadian merchants of weak standing on absurdly long terms of credit, with the inevitable result that bankrupt stocks settled for at ten or twenty cents on the dollar flooded the market ; American manufacturers were selling as nearly as possible on a cash basis and were not cutting prices below the domestic level, though irresponsible jobbers in both countries might tem-

porarily demoralize both prices and terms.[1] Nor were charges of malice lacking: 'The Manager of the Canada Screw Company says they have to compete with the English manufacturers, where the business is virtually controlled by Nettlefold and Chamberlain, of Birmingham, who at times since the organization of the Canada Screw Company have sold screws in the Dominion at lower prices than for other markets, for the avowed purpose of crippling them.'[2] Whatever the motive, whatever the source of this unfair competition, the effect, it was held, was plain in universal depression and epidemic bankruptcy. Only a higher tariff could open the factories and close the soup-kitchens.

Granted that it was desirable to build up in Canada a well-rounded manufacturing interest, and granted that the United States market could not be secured on equal terms, how was the Canadian manufacturer to hold his own against British and especially against United States competition? Could he hold his own without protection? He had the material, if lessening, advantage over his United States competitor, of cheaper labour, except for a few skilled posts, lower taxes, and, as a rule, cheaper raw material. His great disadvantage lay in the lack of a large and secure market such as the United States producer enjoyed, permitting the economies of large scale production and specialization. It was true, as the protectionist with his visualizing of a foreign country as a single personality usually forgot, that for the larger market there were proportionately more competitors, but there was always at least the possibility of greater scale and greater specializing. If the Canadian manufacturer could have secured a foreign outlet, he might have expanded his operations; and early in the seventies we find Hamilton manufacturers of sewing-machines selling two-thirds of their output in Europe, and Oshawa makers of farm tools shipping forty thousand dollars' worth a year of their wares to England; still, this trade needed special cultivation, and for the time was exceptional. There was therefore much force in the

[1] John Macdonald, Toronto, *Hansard*, 1876, p. 334.

[2] *Report of Select Committee on Manufacturing Interests, Appendix to Journals, House of Commons*, 1874, No. 3, p. 14.

contention that, barred from the United States markets by the tariffs and from foreign markets by other handicaps, the Canadian manufacturer in some lines could not successfully stand competition in his own market without protection. But it did not follow, as many concluded, that he could therefore compete if given protection. It might well be that the protection given to offset the advantages enjoyed by United States manufacturers of certain products would enable Canadian manufacturers in the same industry to compete, but would at the same time cripple Canadian manufacturers for whom these products were raw material. It might be that it was difficult for Canadian manufacturers to compete without protection ; but it might also be that it would be difficult to compete with protection. Further, in abnormal times no mere two and a half or twelve and a half per cent tariff increase would prevent slaughtering. The truth was that, so long as the United States kept its own market barred and stood prepared to flood its neighbour's market, Canada was between the devil and the deep sea. But a choice had to be made, and in 1878 the people of Canada chose protection.

But suppose the United States market open on equal terms ? That, the strongest protectionist admitted, would be better than a protected home market. The leading Canadian advocate of protection in the early stages of the agitation, Isaac Buchanan, was equally in favour of absolute reciprocal free trade with the United States. The manufacturers who appeared before the House of Commons Committee on Manufacturing Interests in 1874 had come almost without exception to complain of American or English competition and to demand higher protection ; yet without exception these picked witnesses agreed that admission to the United States market was the sovereign cure for all their ills, an opportunity of which they were prepared to make the most. Representative manufacturers of machinery and tools, agricultural implements, hardware, cottons, woollens, clothing, leather, boots and shoes, lumber, glass, musical instruments, one and all declared they would hold up both hands for competition on even terms with their southern

rivals. Given this desire, it was at least arguable that to retaliate in kind would bring the United States to bargaining mood more quickly than to continue to take it lying down. Modern experience of tariff wars, with the heightening of national animosities, the hardening of accidental opposition into immutable principles of honour, and the creation of vested interests they involve, hardly bears out the argument, but it is not without plausibility and occasional force. It had weight with the Canadian electorate in 1878, when 'reciprocity of trade or reciprocity of tariffs' was the campaign cry of the victorious party. After the election, as the impossibility of opening the United States market either by sunny or by stormy ways grew evident, and present certainties loomed up larger, the Canadian manufacturer ceased to hope for even reciprocal removal of tariffs.

The National Policy promised not only to preserve the home market by protection and to open the United States market by retaliation, but to provide a revenue adequate for the country's needs. The continued deficits of the Cartwright régime were a strong popular argument against the existing tariff policy. If revenues fell, it was natural for a public brought up to believe in the possibility of incidental protection, a tariff yielding both revenue and protection, to urge that the deficit be met, and the needed further shelter against competition be provided, by one and the same expedient, an increase of duties. It was obvious, however, that if the increased duties barred out the foreign goods, the sources of revenue would dry up. The free traders poured scorn on the argument that a duty could be at once protective and revenue-yielding, the protectionists pointed to the hard concrete fact of a tariff which did achieve this impossibility. The fact was, of course, that the tariff was not of a piece ; some schedules were as purely revenue-bearing as any in the customs tariff of the United Kingdom ; others were as purely protective as the out-and-out prohibitions contained in the tariff of France. Where there was no endeavour to produce the commodity in the country, as in the case of tea and coffee, the duty yielded the full measure of revenue ; where the home producers were able to supply the whole

market, as was practically the case with boots and shoes, the duty was solely protective. The duty on cottons was revenue-bearing so far as prints or the finer fabrics which were not produced in Canada were concerned, protective in the case of grey cottons, in which the home producer had driven the English manufacturer out of the market. Where goods were produced in Canada, but not in quantities sufficient to supply the market, the tariff might temporarily yield revenue and aid the home manufacturer by raising the price level by all or part of the duty. A return of importations to the normal level or a substitution of specific for *ad valorem* duties would have enabled the Galt-Cartwright tariff to produce a surplus, but even on the existing level of importations the revenue possibilities of new or higher duties had not been exhausted.

The demand for a higher tariff, finally, was not based solely on economic grounds ; it professed to be a National Policy. No small measure of the strength of protection in Canada as elsewhere has lain in the readier appeal it makes to patriotism. Patriotism is ordinarily both positive and negative ; it is composed in varying parts of love of one's own country and dislike of other lands. On the negative side protection made strong appeal to the anti-American feeling inherited from United Empire Loyalist days, and fostered by the repeated rejection of Canada's trade overtures. It scored equally on the positive side. It promised national self-sufficiency. It promised an industrial life varied enough to find places for all the boys who otherwise would be lost—absorbed by the United States. It promised to develop trade between the provinces, to create an east and west traffic fed by Nova Scotia's coal and Ontario's flour, and to cement national unity by the common interests thus established.

The low-tariff advocate, of course, could promise prosperity as freely, but it was not an exclusive prosperity. He was not, however, without political prejudice on his side ; he made fervent appeals to imperialist as distinguished from nationalist sentiment, urging the impolicy and the ingratitude of higher duties on British goods. To meet this plea the protectionists sometimes trimmed by suggesting a preference on British imports, but more usually they asserted that the

Empire began at home, or if it did not, 'so much the worse for British connection.' It is significant that the Canada First movement was strongly tinged with protectionism. In the clash of ideals nationalism proved stronger than imperialism.

It has been noted that in the fiscal struggle waged in this period, what were at first mere differences of degree hardened in the stress of controversy into differences of kind. All responsible parties were in favour of maintaining at least the existing measure of protection. There was much free trade sentiment afloat, and the popularity of the confused doctrine of incidental protection was largely due to the comforting ease with which it enabled theoretical free-traders to accept a considerable degree of practical protection as a mere by-product of revenue-raising; there was, however, no party ready to put in force a free trade policy. The concrete proposals of opposing parties differed comparatively little. In discussion, however, the advocates of seventeen and a half per cent and the advocates of twenty per cent frequently took up positions poles apart.

The chief stages in the transition from moderate and incidental protection to the later policy may be briefly reviewed. Early in Confederation there were repeated tentative gropings towards the National Policy, to use a phrase which Rose devised, Hincks stamped with his approval, and Macdonald made current. These hesitating beginnings took the form of duties not on manufactured but on natural products, with the primary purpose of building up inter-provincial trade or retaliating against the United States. In the first Dominion tariff a ten per cent tax on breadstuffs was imposed, but Maritime Province opposition compelled its removal a year later. On April 7, 1870, Hincks announced the government's intention to impose duties of fifty cents a ton on coal and coke, four cents a bushel on wheat, three cents on coarse grains, twenty-five cents a barrel on wheat and rye flour, and fifteen cents on other flour or meal, and five cents a bushel on salt. On April 26, at three o'clock, under consumers' pressure, he agreed not to impose these duties; at eight o'clock, under coal-miners' pressure, he decided to retain them. This instalment of the National Policy lasted a year,

and then its unpopularity in every province brought about its repeal ; in March 1871, during Sir John Macdonald's absence in Washington, an opposition motion, with the help of twenty-seven ministerialists, repealed the duty on coal, coke, wheat and flour, and a ministerial motion repealed the other duties ; in April an amendment urging retention of the duties for use in the pending negotiations was overwhelmingly defeated—Hincks, Cartier, Tupper, Tilley and all the other ministers present voting it down.

In his first budget in 1874 Sir Richard Cartwright found himself faced by a threatened deficit, owing to the rapid fall in imports. Remedy was sought in unmistakably revenue duties on tea and coffee, tobacco, wines and spirits, in twenty per cent duties on luxuries such as silks, satins and silver-plated ware, and in the increase of the general fifteen per cent rate to seventeen and a half. Two years later the same emergency arose. Much pressure was brought to bear on Cartwright to take the other bite of the cherry, and raise the seventeen and a half per cent schedules to twenty. It was argued with reason that experience had shown that fifteen per cent was not the revenue-yielding limit, and that a further increase might result in filling the treasury rather than in blocking importation. The general expectation was that the government would consent. Ministerial newspapers foreshadowed an increase ;[1] opposition leaders prepared to denounce the government in the appropriate vague terms ;[2]

[1] 'The impression generally prevails that in the financial statement to be made to-day the seventeen and a half per cent duty will be raised to twenty and probably some specific duty imposed on a few other articles. The bulk of the Maritime members are strongly opposed to any increase in the duty on manufactured goods, and if the increase were to be made only as a concession to protectionist demands, they, being principally consumers and not producers, would have some cause to complain; but if the interests of the revenue alone are consulted in the matter the whole Dominion has to share the burden.'—Ottawa correspondence of the Toronto *Globe*, February 25, 1876.

[2] 'I came, I confess it, to hear the Finance Minister's speech, impressed with the idea that he was going to bring down an alteration of the tariff . . . which would operate, incidentally at all events, in protection of our home industries. . . . When, therefore, the honourable gentleman took his seat at the end of his singularly able but at the same time singularly unsatisfactory speech, I desired, taken by surprise as I was, time to consider what course we should take under the circumstances.'—Sir John Macdonald, *Hansard*, 1876, February 29, pp. 338-9.

Maritime Province deputations threatened to withdraw support. It is now known that Sir Richard pressed hard for an increase, but was overborne by Mackenzie ;[1] the minister of Finance threatened to resign, but finally the members of the cabinet composed their differences and presented a united front to the public, denying most explicitly, but with careful choice of words, that they had entertained any thought of adopting higher 'protection'; of course the increase, if made, would have been 'mainly for revenue.'[2] The minister of Finance trusted that the revival of trade to a normal level would fill the treasury without the imposition of further taxes. The trust was misplaced, the depression grew deeper, the treasury emptier, and the people turned to other fiscal doctors.

IV

1879-1896: THE DAYS OF TRIAL

The Revival of Prosperity

THE seven lean years of depression drew to a close in 1879. For this mercy fervent protectionists returned thanks to the National Policy. Undoubtedly the stimulus given to investment in favoured industries was a notable factor in the revival of confidence and energy. More important, however, were the world-wide improvement of demand, the restoration of the United States market for Canada's lumber, the coincidence of good harvests in Canada with the worst harvests in Britain since the century began. Immigration was spreading its fertilizing flood over east and west. Railroad construction was again expanding, with widely ramifying stimulus. The prairie West was having its first boom. Another brief era of prosperity had dawned.

[1] Sir Richard Cartwright, *Reminiscences*, Interview 25.

[2] 'I have not the slightest doubt that the honourable gentleman would have been extremely delighted to have seen us floundering in the depths of the protectionist bog from which he has emerged. I tell honourable gentlemen of the opposition once for all that, although the government gave very serious consideration to this question, and took great pains to decide what was their duty in this crisis, they did not at any time entertain the idea of levying what is called a protective tariff.'—Sir Richard Cartwright, *Hansard*, 1876, March 10, p. 577.

Immigration, Land and Railroad Policy

Renewed prosperity was both cause and effect of increased immigration. During this period the Dominion government continued an aggressive campaign across the seas, though in the later years its activities were stereotyped in routine and their effectiveness diminished. More reliance was placed on advertisement, on tours and reports of British tenant farmers brought to spy out the land, less on money aids. Under protest from eastern labour circles, congested by immigrants who drifted from farm to city, the Dominion government in 1885 ceased to provide free inland transportation for farm labourers and domestic servants, and Ontario discontinued its free passes ; three years later assisted ocean passages were also abandoned. In 1890 the practice was revived, but amended to ensure settlement on the land : a bonus of ten dollars was given to each head of a family, and five to each member over twelve, on proof of settlement in Canada west of the Great Lakes. Repatriation activities were continued in the United States, but without notable results.

Free land was still the loadstone for the immigrant. No important changes in policy were made by the eastern provinces ; no extensive settlement of their forested crown lands could be expected while the treeless prairie, ready for the plough, was to be had for the asking. In the overshadowing West the policy of the Dominion fluctuated between the desire for rapid settlement and the desire to build the Pacific railroad without entailing a burden on the people. In 1879 it was resolved to set aside 100,000,000 acres to be sold by commissioners at not less than two dollars an acre, the proceeds constituting the railway building fund. In July of that year the land for one hundred and ten miles on each side of the proposed line was divided into belts five, fifteen, twenty, twenty and fifty miles wide ; the five-mile belt was held for sale, but in each of the other belts eight sections in every township were set aside in eighty-acre lots for homesteads, or for pre-emption at prices varying from one to two and a half dollars

an acre. Criticism led to the framing of more favourable terms ; in the following October all five belts were opened to homesteads and pre-emptions in the prescribed townships, and the size of the holding was increased to one hundred and sixty acres.

After the contract was made with the Canadian Pacific syndicate, new regulations were required. It was still thought that the plan of building the road out of a land endowment of one hundred million acres was feasible. Twenty-five millions had been granted the syndicate ; the sale of the remaining seventy-five millions would reimburse the state for its cash subsidies and direct expenditure on construction. ' Beyond a possibility of doubt,' declared Sir John Macdonald in 1882, ' not a farthing in money will have to be paid by the people of Canada.' [1] In a belt twenty-four miles on each side of the Canadian Pacific, alternate sections were to be reserved for the railway grant and for homesteaders ; elsewhere the even-numbered sections were open to homestead and pre-emption, and the odd-numbered were held for sale. Special arrangements were made for sale of this latter land to colonization companies, which were to be permitted to buy land at one dollar an acre, conditionally on effecting a certain degree of settlement. These companies, it was thought, would play the part which the land grant railroads of the United States had played in the rapid and energetic opening up of the country. Their promoters, however, were more eager to reap the hoped-for increase in land values from the activity of others than to undertake the labour of promoting settlement. They promised a ready road to fortune ; every town of importance in Ontario had its colonization company, and seven million acres of land were applied for in a few months. When the difficulty of fulfilling the rigorous duties of settlement came to be appreciated, the speculative fever abated, and one by one the companies lapsed into oblivion. Gradually it came to be felt that the rapid peopling of the country was more important than the millions for which the land might sell. The odd-numbered sections were granted lavishly to colonization railroads ; by 1896 the odd sections in almost

[1] *Hansard*, April 21, 1882.

the whole of the surveyed area had passed into the hands of railway companies. Meantime the privilege given homesteaders of pre-empting an adjoining quarter-section was withdrawn, after repeated warnings and postponings, with the close of 1889. It was felt that the pre-emption system involved an undue scattering of settlement, with consequent difficulties in building roads, forming schools, and in all social intercourse, and that with the odd-numbered sections for sale by railway or government it was unnecessary to reserve still further lands for purchase. With the abolition of pre-emptions there departed the last hope of paying for the Canadian Pacific out of land revenue.

Toward the close of the seventies the completion of railroad connection to Manitoba through St Paul had stimulated the western trend. The plagues of grasshoppers, which had discouraged the early settlers and deterred others, ceased. Then came the active construction of the Canadian Pacific in the early eighties, and the West experienced its first boom. The connection between Lake Superior and Winnipeg was not completed until 1883, but the St Paul connection afforded an eastward outlet, and meantime the rails were being pushed westward across the plains at a speed unprecedented in American experience, two and a half miles a day being the record of 1882. The energy proved contagious. Eastern Canada, and especially Ontario, was seized with the Manitoba fever ; farmers and farmers' sons trekked westward by the tens of thousands ; those who remained behind bought farm lands or lots in Winnipeg or Brandon, or organized colonization companies. Agricultural machinery manufacturers in Ontario strained every nerve to keep up with the demand. In 1882, when the rush reached its height, sixty thousand settlers, or rather tourists, poured in, and nearly three million acres of land were entered by homesteading, pre-emption or sale. Then came killing frosts, nipping the budding boom ; the majority of the homesteads and pre-emptions taken up were abandoned, choice corner lots relapsed into prairie, tens of thousands of the temporary settlers drifted east or south, and eastern speculators went into bankruptcy and mourning. Frost and drought, rail-

way monopoly and high-priced farm machinery, the half-breed rebellion and the counter-attractions of Minnesota and Dakota deterred settlement throughout the eighties. The number of homestead entries made in 1882 was not again reached until 1901. Between 1881 and 1891 the population of Manitoba and the North-West Territories grew from 180,000 to 250,000, while Dakota alone grew from 135,000 to 510,000.

Exodus and Lamentations

Meantime Canada was continuing to lose on her southern border almost as rapidly as she gained on the eastern. The life-robbing drain showed little sign of slackening. During the eighties the number of natives of the United States resident in Canada increased only from 77,000 to 80,000; in practically the same period, 1880-90, the number of natives of Canada in the United States grew from 717,000 to 980,000. Canada with its four million people and its millions of vacant acres had contributed more of its sons to the building of the United States than England with its twenty-nine millions in their crowded land. In such occupations as those of actors, artists, architects, bar-tenders, clerks, dentists, doctors, engineers, nurses, cotton-mill operatives and even lumbermen, the number of native-born Canadians living in the United States approached, and in some instances exceeded, the number living in Canada itself. Counting as fairly Canadian native-born Canadians, children of two native-born Canadian parents, and half the children claiming one Canadian-born parent, there were in the United States in 1890 one and a half million Canadian people, over one-third of the home population. During the eighties, then, it was not surprising that the population grew only half a million, from 4,324,810 to 4,833,239, or an increase of 11.76 per cent as against the contemporaneous increase in the United States of 24.86 per cent. The opponents of the National Policy had many a text for their funeral orations; little wonder that during this period, in the words of a witty critic, the Scriptures according to Sir Richard Cartwright began with Exodus and ended with Lamentations.

The National Policy in Force

The victory of protection in the general election of 1878 was followed by an immediate and thorough-going redemption of campaign pledges. The manufacturer was given the promised increase in the duty on his finished product, offset in some cases, it is true, by higher duties on his raw material. Textiles were especially favoured. On the lines of cotton goods likely to be manufactured in Canada, duties were raised from seventeen and a half per cent to rates, specific and *ad valorem*, equivalent, on the importations of 1881, to thirty per cent. The duties on woollens, all in the seventeen and a half per cent schedule in 1878, were practically doubled; in 1881 blankets paid forty-five per cent; clothing, thirty-five; cloths, coatings, tweeds, thirty-two; dress goods and other woollens about twenty per cent. The rates on furniture and clocks went up to thirty-five per cent; on carriages, glassware, wall-paper and silks to thirty; on boots and shoes, buttons, rubber goods and woodenware to twenty-five. Sugar—the closed Redpath factory in Montreal had figured extensively in campaign debates—was given a five to ten per cent increase, and the bounty on export of refined sugar offered by certain countries in the form of excessive drawbacks was to be considered in determining the basis for levying duties. Pig-iron, previously free, was made to pay two dollars a ton; the duty on iron billets, bars and rods was increased from five to ten and seventeen and a half per cent, while manufactured iron and steel products and machinery were given twenty-five to thirty-five per cent protection. The rate on goods not otherwise provided for was increased from seventeen and a half to twenty per cent, but the bulk of the import commodities in the old seventeen and a half per cent schedule were given special and higher rates. A marked feature of the new tariff was the substitution of specific or compound duties for the *ad valorem* rates of the old tariff, a measure designed to guard against such a falling-off in the revenue as had resulted from the decrease in values in the years of depression, and, it may be, to conceal the

extent of the increase from the lay public. The farmer was remembered by the imposing of duties on wheat, barley, Indian corn and other breadstuffs, and doubling of the duty on live-stock. Inter-provincial trade was promoted by a duty of fifty cents a ton on coal, both bituminous and anthracite, to give Nova Scotia an advantage to compensate for the higher prices paid Ontario for flour; New Brunswick was allowed to pay both bills without amends.

Finally, the National Policy was to provide ample revenues, to change deficit into surplus. In its early years it scored unquestioned success in this aim. In the first year of its operation, it is true, with imports falling to still lower levels, it failed to make ends meet. The next year told a different tale. The imports entered for consumption in the fiscal years 1878 and 1881, ending June 30, were approximately of the value of $91,000,000 in each case. In the former year the Galt-Cartwright tariff yielded $12,800,000 customs revenue on this amount; in the latter year, the Tilley tariff brought in $18,500,000. The increased revenue came in part from the new duties imposed on coal, Indian corn, flour, pig-iron; in part from increased importations of goods on which the duties had not been materially raised, such as tea and jewellery; in part from the heightening of duties, as on blankets, flannels and wall-paper. In some cases, notably with the last three commodities cited, the higher duties lessened importations, but not to the degree to which the rates had been increased, so that the net result was an increase of revenue; in other cases, such as boots and shoes, stoves and furniture, the new duties lessened both the already small importations and the revenue received. Criticism might be offered as to the unfair incidence of the duties or the crippling effect of taxes on raw materials such as coal or pig-iron, but there was no doubt that, as an instrument for extracting taxes from the people, the National Policy tariff improved on its predecessors.

There is no finality in tariffs. Every succeeding session saw amendments made, but few important changes were introduced during the eighties. The general tendency of the amendments was still upward, cottons, sugar, agricultural

implements and musical instruments being favoured in turn. A striking instance of class legislation on behalf of the farmers was witnessed in 1886, when the manufacture or sale of oleomargarine was prohibited. Excess of revenue was met in 1886 by abolishing the duties on tea and coffee imported direct from the country of origin. Deficits recurred in 1885-86, due, as in the seventies, both to abnormal expenditure and to the fall of imports and revenues alike because of depression. By the beginning of the nineties, the climax in protection had been reached. Thereafter the reciprocity agitation, the sentiment in favour of a lower tariff, growing with agricultural and general depression, and the passing of the Wilson Act in the United States, forced concessions. In 1891 the duty on raw sugar was repealed, without a corresponding reduction on refined sugar, thus sacrificing revenue but retaining protection ; the result was a great increase in consumption. In 1894 came material reductions on agricultural implements, and slighter reductions and readjustments on cottons and woollens ; lumber was put on the free list for the benefit of western, and cream separators for the benefit of eastern farmers.

The most important tariff development in this period was the thorough-going extension of protection to the iron industry. The desire for a completely rounded out and self-sufficient manufacturing economy was balked as long as Canada had to depend on other countries for her supplies of iron and steel, the symbol and foundation of modern industrial development. Ardent free-lance protectionists deplored the spectacle of Canadian ore being exported across the border and the finished product reimported ; they urged that by a systematic and scientific application of protection it would be possible to repeat the success of the United States, to bring it about that Canadian ore smelted in Canadian furnaces, Canadian pig-iron puddled in Canadian furnaces, and wrought iron hammered in Canadian forges or converted into steel in Canadian furnaces, rolled and drawn and slitted in Canadian rolling-mills, and utilized for further production in foundry and factory, would supply Canadian needs. Responsible protectionists in office hesitated to

develop a few ore-mines or blast-furnaces at the risk of crippling the important and successful industries for which iron in its crude forms was the raw material. The solution adopted was the payment of bounties on these cruder products, together with the imposition of duties progressing with the degree of manufacture. In 1883 the beginning was made by offering a bounty on pig-iron of a dollar and a half a ton, reduced to one dollar in 1889, and doubled three years later. In 1894 the bounty was confined to pig-iron made from native ore; at the same time a further bounty, to run for five years, was established of two dollars a ton on puddled bars and steel billets, made from Canadian pig-iron, which in turn had been made from native ore. The Ontario government in the same year offered an additional bounty of one dollar a ton on pig-iron made in Ontario from Canadian ores. Meantime the whole iron schedule of the tariff had been extensively readjusted in 1887. The minister of Finance, Sir Charles Tupper, adopted the United States principle of proportioning the duty to the amount of labour represented in the product, and put the rates at about two-thirds of the United States level; the duty on pig-iron became four dollars; on blooms and billets, nine; on bars, thirteen; on rails, six; and there were substantial advances on structural iron, locomotives and manufactures in which iron was an important constituent. As yet no attempt was made to foster the production of steel.

Commercial Relations with the United States: the Era of Friction

The twenty years from 1878 to 1898 form an epoch in the relations between the two English-speaking democracies which is not of inspiring memory. It was a period of stress and strain, a period marked in the United States by Congressional arrogance, relieved by occasional flashes of Executive reasonableness, and in Canada by excessive looking to Washington. It was a period of petty irritations and short-sighted huckstering. As before, the matters at issue were chiefly the fisheries, transportation and the tariff, and

as before, these subjects were closely connected in diplomatic discussion, though in each case the passing of time had shifted the emphasis and altered the relations.

For a few years the prevailing prosperity and the regulation of commercial relations by the Washington Treaty prevented any noteworthy friction—unless it was the tin can war, the levying by the United States of duties on the cans containing fish which by treaty were to be free of duty, and retaliation by Canada through duties on tin cans and peach baskets.

Fisheries Disputes.—The Atlantic fisheries question was reopened in July 1883, when the United States, at the earliest possible moment, gave the required two years' notice of the abrogation of the fishery clauses of the treaty. The general public in the United States resented what they considered the absurdly excessive money award given Canada by the Halifax arbitration. The Gloucester fishermen, whom New England's influence and the gentlemen's agreement among fellow-protectionists made powerful at Washington, strongly urged abrogation. They declared that access to the Canadian inshore fisheries was now of little value : for cod they went to the deep-sea banks, carrying iced or salted bait ; for mackerel, they used the purse-seine in deep water instead of 'chumming' inshore waters ; herring they could buy from the provincial fishermen ; certainly, whatever the benefits, they were not worth purchasing at the price of Canadian competition in the Boston fish-market—arguments doubtless of weight, though perhaps the unexpressed intention to continue using the fisheries they depreciated, as far as aggressive interpretations of treaty rights would warrant, had equal force.

With the abrogation of the Washington Treaty provisions, matters reverted for the third time to the 1818 basis. Canada for peace' sake extended the privileges of the treaty from July 1885 to the end of the fishing season, although her fish were required to pay duty from the moment the treaty expired. This concession made to international courtesy, the Dominion began a rigid, aggressive enforcement of what she considered her rights, and partly in accordance with the

traditional policy of using fishery privileges as a lever to overthrow the United States tariff wall. The dispute turned not only on the location of the three-mile limit, whether following shore windings or running parallel to a base line between bay headlands, but more especially on the question of the extent of port privileges which United States vessels might enjoy. The convention of 1818 declared that United States fishing vessels could visit Canadian ports for shelter, repairing damages, obtaining wood and water, 'but for no other purposes whatever.' Canada strictly enforced this clause, forbidding United States fishing vessels to enter port to tranship crews, purchase bait, or ship fish in bond to United States markets. The United States protested against what it termed the barbarous enforcement of antiquated rules, holding that the privileges specified in 1818 were merely explicit exceptions to the rigid British Navigation Laws then in force, laws which had since been entirely swept away, with consequent opening of ports for all privileges; Canada retorting that this extension applied only to trading vessels, and could not be claimed by fishing vessels, even if supplied by the United States government with 'touch and trade' licences.

Undoubtedly there was much that was petty and illiberal in Canada's enforcement of her claims. In her defence it should be urged that the United States had not shown itself responsive to generous treatment, that the preposterous surrender of 1783-1818 set up what was practically joint dominion in Newfoundland and Canadian territory, and that a liberal construction of such lavish terms was hardly to be expected. Whatever the merits of her case, Canada met only a moderate measure of success in both her immediate and her ulterior aim. Retaliation, as usual, bred war, not peace. In 1887 Congress passed a Retaliatory Act, empowering the president to close the ports of the United States to the vessels of any or all of the British provinces. President Cleveland, to his credit—or Secretary Bayard's credit—be it said, to balance the affair of Venezuela, stood firm for conciliation, and agreed to the appointment of a joint high commission, on which Sir Charles Tupper, Joseph Chamberlain, and the British

Ambassador at Washington represented Canada. The commission's endeavour to secure a permanent settlement by providing for a special board to determine in what waters American fishermen could fish, and suggesting free entrance into Canadian ports in return for free market for fish, was wrecked on the rock of senatorial stiff-neckedness, in spite of Cleveland's and Bayard's strong representations. Meantime a *modus vivendi* was drawn up, admitting American vessels to the port privileges desired on payment of a licence fee of a dollar and a half a ton. This temporary arrangement, renewed from year to year, has proved the most permanent settlement in the long controversy. The removal of the chief cause of friction, and the abandonment by Canada of its efforts to use its fishery resources in tariff negotiations, permitted the issue to lapse into blessed oblivion.

Meantime, the scene had shifted to the other coast, and the seal taken the place of the cod and mackerel as the chief *dramatis persona*. The endeavour of the United States to give the Alaska Commercial Company a monopoly of the seal industry, at the expense of pelagic sealers, whether Canadian, Russian, Japanese or independent Americans, brought about an interesting reversal of the positions taken in the Atlantic dispute. Now the United States stood for the utmost extension of territorial waters, Canada for restriction ; now the United States cruisers seized depredators with as high a hand as the Canadian authorities had displayed. Patriots on both sides of the border-line were, of course, convinced that their country was entirely in the right on both issues. Feeling ran high for some years, but in 1892 Lord Salisbury's diplomacy resulted in an agreement to submit the points at issue to arbitration. The tribunal agreed upon, consisting of one French, one Italian and one Swedish jurist, two United States and one British and one Canadian representative, decided strongly against the sweeping claims of the United States. Regulations were suggested and adopted, however, forbidding pelagic sealing within sixty miles of the Pribyloff group, and restricting the weapons to be allowed. In spite of the new regulations, the Canadian catch for a time increased : the United States endeavoured to reopen the

question, but Canada declined to consider its proposal to suspend pelagic sealing, except upon substantial compensation for her sealers. Meantime, in 1897, a commission had assessed at half a million dollars the damages suffered by Canadian vessels from illegal seizure. All efforts to secure settlement failed, but the rapid lessening of the catch bid fair to bring the end of the controversy and of the seal alike.

Transportation Problems.—Transportation continued to bulk large in international affairs, though in altered forms. Canadian control of the St Lawrence outlet came to count for less as a diplomatic asset, partly because the railway was lessening the value of the waterway, and partly because the use of Canadian ports, if not of Canadian canals, was as great a benefit to Canada as to the United States, and not likely to be restricted. In fact, the chief canal issue of this period rose out of the attempt of the Dominion to induce both Canadian and American vessels to use the St Lawrence system clear through to Montreal. The greater the volume of transatlantic freight offered at Montreal, the greater the likelihood of abundant and regular ocean transport appearing, and of ocean rates, which were far above the New York level, falling to something like a competitive basis. In 1882 tolls were abolished on the Erie Canal; to retain traffic for the St Lawrence, Montreal shippers and forwarders at once urged similar action. In 1884 the Dominion agreed to make a reduction, which took the shape of a rebate on grain cargoes going through to Montreal but not to Oswego or Ogdensburg; in 1891 it was provided that transhipment might be permitted at a Canadian but not at an American port. The Canadian government contended that as these measures discriminated against United States routes and ports, not vessels, they could not be considered a violation of the equality pledged in the Treaty of Washington. In 1892 the United States government retaliated against these discriminations by levying tolls of twenty cents a ton on Canadian vessels passing through the American Sault Ste Marie Canal, the Canadian canal at this point not being completed. Canada accordingly issued new regulations imposing a toll of ten cents a ton on vessels passing through either the Welland or

St Lawrence Canals, payment of the Welland toll entitling the cargo to pass through the St Lawrence system free, a provision favouring the Canadian route without the previous explicit discrimination. The United States removed the Sault Ste Marie tolls, and the trouble ended.

Meantime, the railway situation had become acute. This question, which was as much an issue between different sections and interests in the United States as between the United States and Canada, had to do generally with the passing of goods in bond from one country to the other. It presented two quite distinct aspects : the foreign transit trade, traffic between either country and a third country over the territory of the other ; and the domestic transit trade, traffic between two sections of either country through the other's territory. The foreign transit trade, established in 1847 by an executive extension of the clause of Jay's Treaty of 1794 regarding portages, permitted Canada to utilize the Atlantic seaports of the United States when her own St Lawrence ports were ice-bound, and afforded the western states an alternative outlet by the St Lawrence in summer. The domestic transit trade began in 1855, when the construction of the Great Western Railway and the bridge across Niagara opened up, in connection with the New York Central and Michigan Central Railways, the only all-rail route between New York and Chicago. Pressure from American interests led President Pierce to issue an administrative order sanctioning, so far as the United States was concerned, passage of goods by this route in bond. A statute passed in 1866 confirmed this order, and also legalized the foreign transit trade ; an additional guarantee was provided in the Washington Treaty. In the seventies a corresponding favour was obtained by Canadians shipping goods to Manitoba through Duluth or St Paul.

The completion of the Canadian Pacific Railway in 1885 introduced a new and disturbing factor. Pending the development of local traffic, the new road made a vigorous bid for United States east and west traffic, not merely foreign transit trade between Asia and the eastern states, but domestic transit between San Francisco or points on Puget

Sound and the eastern states, in conjunction with a steamship line between San Francisco and Vancouver. Exempt at first from the control of the newly established Interstate Commerce Commission, and from the rule prohibiting lower rates for a long than for a short haul, the Canadian Pacific underbid its United States rivals with impunity; its competition was somewhat moderated, but at the same time recognized, when it entered the Transcontinental Rates Association in 1889, and was granted a smaller differential rating. Meantime, irritation caused by the fisheries dispute led the United States to threaten to cut off the eastern foreign transit trade in bond. The article of the Washington Treaty, legalizing the domestic transit trade, was abrogated in 1885, but the statute of 1866 covering the same ground then revived. United States opinion was divided. On one side stood the transcontinental railroads, eager to be rid of Canadian competition, and general opinion resenting both the fisheries attitude of Canada and the aggression of a railroad, considered to be simply the Canadian government under another name; on the other stood the shippers, who profited by competition, whether in the eastern states or on the Pacific coast or in Minnesota, where the Canadian Pacific had recently entered into alliance with the Sault Ste Marie line. Fortunately the settlement of the fisheries question removed the cause of United States irritation, and after the holding of the presidential elections in 1888 there was not the same temptation to ultrapatriotic politicians to attempt to inflame that irritation, so that gradually the bonding issue, always a secondary matter, ceased to attract public attention, and no open breach resulted.

Commercial Union and Unrestricted Reciprocity.—In the negotiations for closer trade relations between the United States and Canada, the initiative has usually come from a victory of low-tariff sentiment in the United States. The Reciprocity Treaty of 1854 was possible only through the ascendancy of the low-tariff democrats in Congress. The Commercial Union and Unrestricted Reciprocity agitation of the late eighties followed a new onslaught on the protectionist entrenchments at Washington. The Taft-Fielding proposals

twenty years later were the direct outcome of a revolt in the United States against vested interests in general and tariff extortion in particular. In the quarter century following Confederation, Canada may be considered a constant quantity; both political parties stood pledged to securing closer commercial relations with the republic, however they might differ in the scope of the arrangement they were willing to conclude. The United States was the variable factor; a brief review of the development during this period is essential to an understanding of the contemporary Canadian situation.

The high customs rates which the United States inherited from the necessities of the Civil War persisted without serious reduction for over twenty years after the war had closed. A horizontal reduction of ten per cent made in 1872 was repealed after three years of commercial depression and falling revenues; a revision made in 1883, after investigations by a special commission, had given only slight reductions, and those in the manufactures least exposed to foreign competition. Although the democrats secured control of the presidency and of the House of Representatives in 1884, for the first time since the war, the strength of a political minority in their own ranks blocked revision; it was not until the end of his term that President Cleveland succeeded in his policy of educating his own party and committing them solidly to tariff reduction. His famous message of December 1887, devoted entirely to the revenue and tariff situation—'it is a condition, not a theory, which confronts us'—forced the fighting on the tariff issue in the presidential campaign of the following year. The republican party, committed by opposition more strongly than ever to the defence of protection, won a sweeping victory, controlling presidency, Senate and House. In fulfilment of their campaign pledges they passed, in October 1890, the McKinley Act, which raised to the point of exclusion the duties on many manufactured products, notably textiles, and threw a sop to the farmers, growing restless under falling prices and trust and railroad domination, by making the duties on agricultural products almost prohibitive. Secretary Blaine's agitation for commercial union with the Latin-American states bore fruit in a provision

authorizing the president to impose taxes on sugar, molasses, tea, coffee and hides, as a means of securing concessions abroad. Under its terms agreements were concluded with Brazil, certain powers having West Indian possessions, and Germany and Austria-Hungary. Meantime the sudden rise in prices following the imposition of the new duties led to a remarkable revulsion of sentiment; in the congressional elections of 1890 and the presidential election of 1892 the democrats won sweeping victories on the tariff issue. In spite of the honest efforts of President Cleveland and the democratic leaders in the House to carry out their platform promises, the strong republican minority in the Senate, aided by democratic representatives of sugar and other interests, led to futile compromise and damaging failure; the Wilson-Gorman bill of 1894, which became law without Cleveland's signature, modified the McKinley rates here and there, but on no uniform or consistent principle. Finally the victory of the republicans in 1896, on the free silver issue, compelled its leaders to carry out their pledges to raise the tariff walls still higher, with the result known as the Dingley tariff of 1897.

In Canada closer trade relations with the United States ceased to be a vital issue for some years after the adoption of the National Policy. Then dark days came. The depression of 1873-79 had created the demand for protection as a sovereign remedy; the depression of 1884-89 brought on the agitation for Commercial Union. The National Policy had not proved a cure-all. Retaliation had not brought concessions from the United States, which seemed oblivious of the fact that retaliation was in force. The manufacturer was still hampered by a small and stagnant market. The farmer suffered from falling prices. The West had halted in its progress. Foreign trade had fallen not only below the mark of 1883, but below the mark of 1873. Racial and religious and sectional discord, bitter beyond all Canadian record, deepened despair and brought many to welcome heroic remedies. The turning of the democratic party toward free trade seemed to promise a favourable reception of overtures. The fisheries dispute made negotiations necessary; why not link fisheries and tariffs as of yore?

The time brought the man. Erastus Wiman, who was the moving spirit in the Commercial Union agitation on both sides of the border, was a Canadian by birth, and still a Canadian by allegiance; from journalism he had shortly turned to business; promotion led him across the border, where success increased. By 1887 he was manager of the Dun Mercantile Agency, and president of the Great North-Western Telegraph Company, controlling the bulk of the lines in Canada. 'At that time,' he writes, 'I was in receipt of an income of fifty thousand dollars a year, and was prosperous beyond the ordinary lot of man; I determined to devote a portion of my income to the promotion of this cause, for it was impossible from my previous training and my perfect knowledge of Canada on the one hand, and on the other of the United States, not to realize the enormous consequence that would flow to both from breaking down the barrier between them.'[1] In the United States he found allies in S. J. Ritchie, a capitalist with large railroad and mining interests in Ontario, requiring larger markets for successful exploitation, and in Ritchie's legal adviser, Congressman Butterworth of Ohio. They recognized the hopelessness of attempting to persuade the United States to accept the limited treaty of 1854, and came out strongly for a zollverein on the German model, or, to use the phrase for which Goldwin Smith stood godfather, Commercial Union. By Commercial Union its advocates understood absolute free trade between the United States and Canada, common excise rates and a common customs tariff against the rest of the world, the pooling of customs and excise revenues, and their redistribution according to population.

A zollverein was not a new idea in the discussion of commercial relations on this continent. In the United States it had secured the backing of such diverse public men as Stephen Douglas, Horace Greeley, William H. Seward and Ben Butler, of official investigators like Taylor, Derby and Larned, and of committees of the House of Representatives in 1862, 1876, 1880 and 1884. In Canada the project had been urged by Isaac Buchanan, the outstanding advocate of protection in

[1] Hopkins's *Canada, an Encyclopedia*, i. p. 412.

pre-Confederation days, as well as by L. H. Holton and the Hon. John Young ; it had been opposed by Galt in a strong report in 1862, yet, in a partial application, contemplated by Canada in the Galt negotiations of 1866 and the Rose negotiations of 1869 ; it had been firmly set aside by Brown in 1874. But never before and never since did the conjunction of economic and political affairs permit the proposal to attract the general and serious attention secured in the late eighties.

The campaign for Commercial Union may be said to have begun in 1887, when H. Butterworth introduced in Congress a bill providing for the free entrance of all Canadian products whenever Canada should permit the free entrance of all American products. Congress at the time was busied discussing and endorsing the bill empowering the president to retaliate upon Canada for her behaviour in the matter of the fisheries, but prominent representatives like Hitt, chairman of the Foreign Affairs Committee, and Dingley, later known to Canada as sponsor of a famous tariff act, took occasion to say they would prefer Butterworth's soft answer to the ' big stick ' policy they were adopting. Wiman immediately followed up this opening by urging and organizing Canadian opinion, especially among the farmers. Discussion at once sprang up in press and public meeting and farmers' institute. The new panacea proved popular with the farmers ; by the middle of July thirty farmers' institutes in Ontario had endorsed it, and only one opposed. It was vigorously championed by the Orange-Conservative organ, the Toronto *Mail*, as well as by such representatives of Liberal opinion as the Toronto *Globe* and Montreal *Witness*. The commercial interests were decidedly opposed, as were the majority of the manufacturers, although the minority counted men like Massey of Toronto, Norris of St Catharines, Waterous of Brantford, Turnbull of Galt, Williams of Berlin, Leonard of Chambly, Gibson of Marysville, and others who declared their readiness to face American competition in the wider market. The discussion continued till well into 1888 with unflagging interest ; then the Jesuit Estates controversy in Canada, and the sweeping triumph of high protection in

the United States, abated zeal, only to revive when a general election brought the issue into practical politics.

The attitude of both political parties was shifting and uncertain. 'The effort to obtain the freest possible commercial intercourse between Canada and the United States, consistent with the rights and interests of the two governments,' declared the minister of Finance, Sir Charles Tupper, with axiomatic accuracy, 'is a policy that does not belong to one party only, but it is the property of both parties in this country.'[1] The extent of commercial freedom endorsed varied with the American situation and with the party's relation to the Treasury benches. In the present discussion neither party endorsed Commercial Union. The liberals, disheartened by defeat in the general election of 1887, and distracted by changes of leadership, were at sea for a policy. The retiring leader, Edward Blake, had taken the position in the late campaign that the system of protection was an accepted fact, and could not be rudely disturbed; the new leader, Wilfrid Laurier, had belonged to the Parti-National in Quebec, the intensely protectionist wing of the liberal party. Sir Richard Cartwright and David Mills and John Charlton were more in sympathy with freer trade; and the majority of newspaper guides looked the same way. A suggestion by the liberal member for West Ontario, James D. Edgar, in a series of open letters between Erastus Wiman and himself, published in November 1887, crystallized opinion in favour of Unrestricted Reciprocity, a compromise designed to secure full freedom of trade between Canada and the United States, but retaining the custom-house along the border and the freedom of each party to make what rates it wished against other countries. At the beginning of the session of 1888 this policy was sanctioned in caucus, and it was on this platform that the liberals fought the election of 1891.

The conservative party, though historically more committed to the policy of Commercial Union, were held against it by political sentiment and manufacturers' hostility. At an early stage in the discussion it seemed probable that they would go far toward it. In May 1887, in response to an in-

[1] *Hansard*, April 10, 1888.

formal invitation from Secretary Bayard, conveyed through, if not originated by, Erastus Wiman, Sir Charles Tupper went to Washington, and began the negotiations which resulted in the appointment of the Fisheries Commission later in the year. Following long-established tradition, the Canadian minister of Finance endeavoured to couple the fisheries and trade questions; Bayard and Tupper agreed that the only way to secure a just and permanent settlement was by 'straightforward treatment on a liberal and statesmanlike plan of the entire commercial relations of the two countries.' In the three months' negotiations which followed, more than half the time was occupied in discussing the questions of trade. It is uncertain to what extent the Canadian negotiator was willing to go; later, he denied having made 'an offer of unrestricted reciprocity,' but admitted having made 'an unrestricted offer of reciprocity.' But Congress, irritated by the fisheries seizures, was in no mood for discussing trade relations till the other question was settled, and the goodwill of the Executive went for nought; the arrangement concluded was confined to the matter of the fisheries.

This corner turned, the government benches were free to denounce Commercial Union and Unrestricted Reciprocity alike. On the eve of the election in 1891, the government cut the ground from under the feet of the opposition by announcing that in the course of reciprocity negotiations between the United States and Newfoundland, arrangements had been made, on the initiative of the United States, for a thorough-going settlement of all outstanding difficulties with Canada as well. The policy of the administration comprised reconsideration of the fisheries question, reciprocity in the coasting trade and in salvage, and 'renewal of the reciprocity treaty of 1854 with the modifications required by the altered circumstances of both countries, and with the extensions deemed by a joint commission to be in the interests of Canada and the United States.'[1] Though somewhat weakened by Secretary Blaine's indignant denials that he had initiated the negotiations, the announcement inevitably won those in favour of a measure of freer trade, but dis-

[1] *Canadian Sessional Papers*, 1891, No. 38, sect. 4.

trustful of the political consequences of the more sweeping proposals. Disclosures of annexation plottings of eminent Commercial Union sympathizers injured the wider policy; the election resulted in a tie in Ontario and Quebec, but in the other provinces in a majority for the government, increased in by-elections. After the elections, members of the cabinet made another pilgrimage to Washington, but were unable to arrange a conference with Blaine, still irritated by the unwarranted use made of his name in the Canadian campaign. A year later, an informal discussion was held in Washington between Sir John Thompson, the Hon. George E. Foster, the Hon. Mackenzie Bowell, and Sir Julian Pauncefote, British ambassador at Washington, on the one side, and Secretary Blaine and General Foster on the other. According to the Canadian version of the negotiations, supported by Sir Julian Pauncefote, Blaine insisted that assimilation of the Canadian to the United States tariff and discrimination against the United Kingdom were indispensable; according to General Foster, the former demand was not made a *sine qua non*. At all events the views of the two parties were too divergent to permit of agreement, and the negotiations ended. Two years later the Wilson tariff lowered the duties on several important Canadian products, but the respite was brief; in 1897 came the climax in agricultural protection, the Dingley Act.

The last episode in this chapter followed shortly after the change of government in 1896. The liberal party, chastened by Edward Blake's remarkable letter published on the morrow of the 1891 election, and by by-election defeats, had meantime returned to its old policy of a more limited reciprocity and of general tariff reduction. The endeavour of the United States to secure a revision of the regulations for pelagic sealing in Bering Sea, drawn up in 1893, led to conferences between the new Canadian government and the cabinet of President McKinley, in which a settlement of all outstanding issues was suggested. Finally a joint high commission was appointed in 1898, with Sir Wilfrid Laurier, Sir Richard Cartwright, Sir Louis Davies and John Charlton of Canada, Lord Herschell of the United Kingdom,

and Sir James Winter of Newfoundland as the British representatives. In repeated and exhaustive sittings, beginning in Quebec in August 1898 and ending in Washington in February 1899, all the accumulated difficulties of two decades were discussed—the fisheries on both oceans, the pressure from shipbuilders and navy enthusiasts in the United States for abrogation of the Rush-Bagot convention limiting naval armament on the Great Lakes, the irritating enforcement of the Alien Labour Laws, bonding, coasting, and salvage privileges, the trade relations and the Alaska boundary difficulty. Agreement might have been reached on the majority of the issues, including provision for reciprocal free trade in a limited list of natural and manufactured products, but for irreconcilable differences regarding the Alaskan boundary settlement.

Thus ended a period of unneighbourly quarrels creditable to neither nation, and least to the larger. The conditions were not favourable for a broad and statesmanlike settlement of the outstanding issues, consistent with the economic advantage and the political independence of both countries. The United States, throughout this period, was still dogmatically protectionist, still prosperous, still provincial, still prodigal of resources; the 'muckraker' and foreign complications and wealthy malefactors had not yet disturbed complacency. The organized anarchy of the check and balance system, carried to its illogical extreme in a constitution which kept executive, senate and representatives normally at loggerheads, still made negotiation difficult and ratification a gamble. Canada needed larger markets, but power to force them was lacking; paradoxically, she could only secure concessions when she should become sufficiently prosperous and self-reliant to do without them. Commercial union was a counsel of despair. It would unquestionably have meant a common tariff framed at Washington, with consequences pregnant with financial embarrassment and fatal to self-respect, leading inevitably to a movement for political union as the only way to secure a share in determining the common policy. Unrestricted reciprocity, in the existing temper of the United States, was a delusive dream. In so far as it involved a real control by each country of its own tariff on goods

from other countries, together with entire freedom of trade between the United States and Canada, it was free from the political defects of commercial union, but it was hopelessly out of the question to expect that Congress would agree to accept a measure admitting all the products of Europe, direct or slightly remanufactured, through the Canadian back door. Even George Brown's limited and guarded arrangement of 1874 failed on this ground, and the United States, in the late eighties, with protectionism rampant and expectation widespread that Canada was about to sue for commercial or political union, was much less likely to accept so one-sided an arrangement. When the freer trade party was in power in the United States, the higher tariff party was in power in Canada ; and, when the freer trade forces came to power in Canada, the advocates of higher tariff were again in control in Washington. The gods were against a bargain.

Foreign Commercial Relations : Power and Policy

For many years foreign trade relations meant to Canadians relations with the United States. The rest of the world, outside the British Empire, had not yet come within the Dominion's ken, and much less Canada within the ken of the rest of the world. Until the wakening of the Far East attracted attention to possible markets, and the building of the Canadian Pacific Railway and its Pacific ocean connections gave Canada a westward as well as an eastward outlook, trans-Pacific trade could not arouse wide interest. With Europe, difficulties of negotiation and communication, and the indifference of European powers to the trade of a colony overshadowed by its southern neighbour, made progress slow. The West Indies and South America were linked by closer conditions of trade, but here also political difficulties and domestic distractions prevented any extensive development. Throughout, the attempts to secure more intimate commercial relations in these various directions were sporadic and fitful, suggested as a rule by periodic failures to obtain the open United States market, which had first claim on endeavour.

At the threshold of the problem of extending foreign trade relations was the question of Canada's power to shape her own policy. Her freedom of negotiation was still hampered by survivals of the old colonial system. The dominions beyond the sea were still regarded as appendages of Britain, politically inferior, and requiring commercial oversight, whether, as waning protectionism had held, for Britain's good, or, as the reigning dogmatic free trader maintained, for their own and the world's good. Emancipation came slowly. It may be summarized under three aspects.

First came Britain's abandonment of the power to shape Canadian commercial policy, actively and positively. Twenty-five years before Confederation the last Canadian tariff made in England was enacted. Control of colonial trade policy by monopoly of the treaty-making power, regarded as the symbol and test of sovereignty, outlasted control by tariff-making. The colonies were willy-nilly included in the commercial treaties made by the United Kingdom with foreign powers, or, if not included, it was because of the indifference of both negotiatiors rather than from any desire to concede self-government. The Empire was not always one, it is true, since the United Kingdom enjoyed privileges in some foreign countries not shared by the colonies, as in France in the seventies, and the colonies in turn, in these omitted instances, were not bound to grant the same terms that Britain gave; but, for the most part, the Empire was one, and the United Kingdom was that one. It was not until 1877 that the colonial secretary, Lord Carnarvon, proposed to the colonies to insert a clause in future commercial treaties, making their adherence optional. The proposal was accepted, and, with occasional omissions and variations, such a clause was henceforth included; Canada used her new power, as a rule, to decline adherence, though no consistent principle of action can be seen to underlie her policy.

Freedom for the future was thus secured, but irksome legacies remained. Canada was still bound by the treaties concluded before 1877. These treaties for the most part provided that Canada must grant the country in question any commercial privilege accorded to other foreign powers,

receiving in return most-favoured-nation treatment. Two treaties, one made with Belgium in 1862, and the other with the German Zollverein in 1865, went further, ensuring to these states equality in colonial markets, not only with other foreign countries, but with the United Kingdom itself. It is significant of the little heed paid to our foreign relations in the earlier years of Confederation, that the operation of the ordinary favoured-nation treaties was widely ignored or misconstrued. The opponents of Brown's draft treaty in 1874 rested their contention that the arrangement meant free trade with the world, not on the favoured-nation provisions, but on the fact that 'as England keeps in stock for sale the manufactures of all nations, and is fast becoming the warehouse rather than the workshop of the world, it follows that free trade with Great Britain means free trade with the world.'[1] As late as 1891 we find Sir John Thompson declaring that in the discussion of reciprocity with the United States in 1887, the views of the British government as to the bearing of the most-favoured-nation treaties had been ascertained, and were to the effect that without any doubt such a treaty would not involve granting similar terms to the most-favoured nations.[2] Thus far, at least, the treaties in question had not involved any serious inconvenience. The Belgian and German treaties, however, stood in the way of the policy of inter-imperial trade preference; any reduction of duties accorded the United Kingdom must at once be granted to Belgium and the Zollverein, and thence automatically extended to other most-favoured nations. The repeated endeavours made to remove this restriction will be noted in a later paragraph.

Negative control by veto power outlasted positive control by binding act or treaty. Free-trade dogmatism followed protectionist paternalism, or rather stepfatherliness. Belief in the direct benefit to British merchants of free access to colonial markets, in the indirect gain of setting the world a good example, and in the harm of protection to the colonies themselves, led colonial secretaries for many a year to read

[1] Toronto *Mail*, August 27, 1874.
[2] *Hansard*, August 18, 1891.

economic lectures of unimpeachable orthodoxy and cocksureness to erring colonials, and to endeavour by the veto power to keep them in the strait and narrow path of a free field and no favours. The attempt to forbid tariff discrimination against British in favour of Canadian manufacturers did not survive Galt's spirited memorandum of 1859. When the National Policy was instituted by another Macdonald administration, loud protests were uttered; but the colonial secretary, in response to John Bright's query whether the government intended to represent to the Canadian government the impolicy of a war of tariffs between different portions of the Empire, replied that the government had already cabled expressing their regret, but deeming 'that the fiscal policy of Canada rested, subject to treaty obligations, with the Dominion legislature.' Still milder echoes followed the adoption of the policy of giving extended protection to the iron industry in 1883 and 1887. The right, again, to discriminate in favour of one British colony against another, had been successfully asserted by the Province of Canada before Confederation, was put in practice in 1868 in the case of Prince Edward Island, then outside the union, and reasserted once more in 1882 against Lord Kimberley, whom Sir John Macdonald termed 'a decided autocrat, rather behind the age as to colonial matters.' The royal instructions to the governor-general, requiring the reservation of any such proposals for British review, were amended in 1878, and of late years the right and the practice of such discrimination have passed unquestioned. The right to discriminate against the United Kingdom or other parts of the Empire in favour of a foreign country was opposed more tenably. In 1867 objection was taken to a clause in the Customs Act offering reciprocity with the United States in specified articles, but it was withdrawn, 'in view of Great Britain's long historical course with reference to reciprocal relations between this country and the United States, and also largely because the class of products spoken of were raw materials which did not greatly affect the commerce of Great Britain or other countries of Europe.'[1] Seven years later Lord Derby, acting

[1] George E. Foster in *Hansard*, February 18, 1889.

on misinformation as to the Brown-Fish negotiations in Washington, thought it necessary to declare that discrimination against the United Kingdom would not be permitted. Although Cape Colony later granted the Orange Free State favours not extended to any part of the Empire outside Africa, the matter has not since been put to the test so far as Canada is concerned. It is true that in 1890 the British government vetoed the reciprocal agreement between Newfoundland and the United States, because of Canada's complaint that her interests were prejudiced. But, aside from the fact that even at a later date the island colony has not ranked quite on a level with the larger dominions in the measure of self-government enjoyed, the joint interest of Canada in the fisheries question made this a special case. It will probably not be questioned, that had any ministry in a self-governing Dominion proposed such discrimination of late years, the barrier would be found not in a rusty veto, but in the voluntary resolution of the peoples of the Dominion to recognize the special claims of the United Kingdom.

The third phase of development consisted in the gaining of a positive share in negotiations with foreign countries. The past half century has witnessed a steady development from grudging and hampered concession of a subordinate share, the humble hodman task of gathering materials, to the frank and full recognition of the right to conduct negotiations of far-reaching importance in all but nominal independence. Naturally it was with the United States that direct intercourse first developed. In the negotiations seeking to prolong or revive the old reciprocity treaty, the delegates from the provinces and from the newly formed Dominion had a free hand. In the negotiations with West Indian powers in 1865 to secure alternative markets, on the contrary, the colonial delegates were only authorized to confer with the British minister in each foreign country and to offer him information, while the chairman of the commission, William Macdougall, declared later his belief 'that the despatches which I carried were not the only despatches sent to those Governments and to those colonies.'[1] A demand made by Huntington and Galt

[1] *Hansard*, April 21, 1882, p. 1093.

in the Canadian parliament in 1870 for independent treaty-making powers was opposed by Macdonald, on the ground of the great advantages of British assistance in negotiating treaties—advantages better appreciated by Sir John a year later, when he was one of five British commissioners at Washington. In 1874 Brown was made joint plenipotentiary with the British ambassador at Washington, and carried on the negotiations virtually alone.

With European powers, a free hand came more slowly. In appointing Galt high commissioner at London in 1879, the Macdonald government suggested that, in view of the neglect of specifically Canadian interests in the treaties made by the United Kingdom, separate and distinct trade conventions with foreign powers should be negotiated, and that for this purpose Galt should be considered ambassador at large to Europe. The colonial secretary replied that while Her Majesty's government would readily avail themselves of any representations he might make on behalf of the Canadian government, it would rest with the Foreign Office to determine in each case in what precise capacity to use his services, whether to keep him in London or to send him to assist the British ambassador abroad. In his negotiations with France and Spain in 1879 and 1882 Galt received larger powers than this cautious statement would have forecasted, but he was still hampered by his subordinate position, and by the necessity that all his intercourse 'should be filtered through Her Majesty's Minister.' In 1883, at the Cable Conference in Paris, Sir Charles Tupper signed the protocols on behalf of Canada as one of the high contracting parties; in the same year, and again in 1889, in negotiations in Spain he was made joint-plenipotentiary with the British ambassador; in 1887 he negotiated direct with Washington, ending what Bayard termed the 'wordy triangular duel,' Washington-London-Ottawa, which had long delayed and endangered the settlement of differences; and in 1893, along with the British ambassador at Paris, negotiated and signed a treaty with France. In spite of the actual advance, the Foreign Office still maintained the old theoretical position, Lord Ripon declaring in 1895 that negotiations must be conducted by

Her Majesty's ambassador, who would keep the British government informed and seek instructions, but it would be desirable that he should have the assistance, either as a second plenipotentiary or in a subordinate capacity as the British government might decide, of a delegate appointed by the colonial government. Meantime, in parliamentary discussions, demands for wider powers were being raised, notably in 1882 by Blake, who was equalled only by Tupper in his sturdy assertion of Canada's equal status, by Cartwright in 1889, and by Mills and D'Alton McCarthy in 1892, the result of discussion and of experience gradually leading to virtually independent control under formal British auspices.

So much for the powers. As to their use, little progress was made for the first quarter century after Confederation. In 1879 Galt was dispatched to France to attempt to secure the recognition of Canada as entitled to most-favoured-nation treatment, a recognition she had shared with Great Britain until 1873, when France discovered that the treaty of 1860 did not specifically include the colonies, and accordingly applied to their products the general instead of the conventional tariff rates. On wooden ships, Canada's chief export to France, this meant a duty of forty francs a ton instead of two, and killed the trade. In retaliation Canada raised her duty on French wines, with like effect. Galt's endeavours came to nothing in face of foreign complications, changes of ministry, and rising protectionist sentiment in France ; and so again in 1882. Nothing came of Tupper's efforts in 1883 and 1889 to secure reciprocal advantages in the Spanish West Indies. In 1893, however, renewed negotiations with France, set on foot because of the French revision of the tariff on maximum and minimum lines, with the United States receiving minimum rates on many products Canada produced, led to important results. A treaty was concluded, providing for the admission of Canadian fresh-water fish, apples and pears, canned meats, building timber, paper, boots and shoes, common furniture, wooden sea-going ships, and other minor articles into France at the minimum rates, and for reduction of Canadian duties on wines, soap, nuts, plums and prunes ; direct shipment of Canadian products to France was required

to secure the special rates, but no corresponding obligation was imposed on France ; Canada agreed to grant France and her colonies any commercial advantage given to a third power, while France limited the most-favoured-nation treatment of Canada to the articles enumerated in the treaty.

The Development of Foreign Trade

The foreign commerce of the Dominion advanced rapidly after the revival of trade in 1870, reaching a climax in 1883 which was not again attained until 1893. The fall in prices of the later years masked the real, if slow, progress that was being made. The aggregate foreign trade, which in 1873 had been $217,801,703, fell to $153,458,682 in 1879, rose to $230,339,826 in 1883, and ebbed and flowed slightly until in 1896 the mark stood at $239,025,360. The exports of Canadian produce experienced two upward swings, one culminating in 1882 and the other beginning in 1892. In farm produce, cattle and cheese exports to Great Britain accounted for the greater part of the increase, bacon beginning to bulk large after 1892. The exports of wheat and flour showed surprisingly little expansion ; in value, the eight-million mark of wheat exports in 1874 was not again touched until 1898, though the quantity was occasionally slightly exceeded ; the export of flour in fact declined both in quantity and in value. For mineral products the United States remained as dominatingly the market as Great Britain for farm produce, the exports slowly doubling in the period. Forest exports, which the same two markets continued to absorb in fairly even quantities, remained stationary, the high-water mark of 1873 not being reached again until 1897. In the case of the fisheries, on the contrary, other markets, chiefly those of the West Indies and south-western Europe, held first place, absorbing steady quantities of salted codfish, the United States adding fresh fish and lobsters, and Great Britain canned salmon, to their demands. Manufactures doubled to seven millions in 1895, the increase being due chiefly to leather, cotton, agricultural implements, musical instruments, liquors, wood-pulp and household effects. Until 1890 the

question whether Great Britain or the United States would prove the better outlet was undecided, though for the greater number of years the balance inclined in favour of the former; but in that year, thanks to the McKinley tariff and allied causes, the total British purchases rapidly drew away, and in 1895-96 were sixty-two as against thirty-four millions. The total exports to other countries showed remarkable stability at seven or eight millions throughout, adding a million or two in the closing years of the period, the West Indies, Newfoundland, South America, Germany and France being the leading customers. Meantime the imports told a different tale. From the United States, imports for home consumption varied little in value, the levels in 1874, 1883 and 1895 being practically the same, between fifty and fifty-five millions. But in imports from Britain the trend was downward; the sixty-eight millions imported in 1873 had fallen to thirty-one in 1879, rose to fifty in the prosperous year 1883, and then fell, rapidly in the later years, to thirty-two millions in 1896; the chief decline came in cottons, woollens, and manufactures of iron and steel. Of other countries, Germany in the later years rose to first place, with a total of five millions, followed by the West Indies and France.

The Farmer and Falling Prices

The farmer's vested right of grumbling at his lot had justification in this period, if ever. It was a time of crippling competition, of vanishing profits, of slow and painful re-adjustment to new conditions. The world over, production seemed to have outrun consumption. In the United States, in Australia, in Argentina and Chile, in Russia, in India, tens of millions of new acres were growing grain or pasturing countless flocks and herds. The improvement of railroad and steamship facilities poured this embarrassing abundance quickly and cheaply on the common markets of the world. The sudden expansion of the supply of food and raw materials, coinciding with the failure of the world's gold supply to increase in proportion, and the demonetization of silver, brought a fall of prices, world-wide and world-disturbing.

Wheat prices in England, which had averaged $1.75 a bushel in the ten years following Confederation, fell to $1.28 in the next decade, and to .88, or half the earlier price, in the years from 1887 to 1896. The general level of prices, according to Sauerbeck's standard index numbers, fell from 111 in the climax year of 1873 to 88 in 1880 ; 72 in 1885 ; 72 in 1890 ; 62 in 1895 ; and in 1896, 61, the lowest average in the century. Translated from statistics into social movements, this fall in prices involved, in the United Kingdom, deep agricultural depression and revival of fair trade doctrines ; on the continent of Europe, the upbuilding of agrarian protection ; in the United States, abandoned New England farms, defaulting Kansas mortgages and populist free silver agitation. Canada's West had not yet developed sufficiently to enable her to share materially in the benefit of the increased production, and her East had thus to bear the brunt uncompensated. The fall in prices here, as elsewhere, lowered cost of production and cost of living in what the farmer had to buy, and, for the men who could read the lesson of the time and adapt themselves to new conditions, there was a measure of relief in the development of specialized farming industries. But to the farmer of less enterprise and more conservatism, the man who had barely succeeded when all was in his favour, this day of trial brought hardship and hopelessness.

The area occupied and the area improved grew one-third from 1881 to 1891, but in the next decade remained nearly stationary, the land under crops actually decreasing in the later period. In the Maritime Provinces, the farming population decreased in both decades ; in Quebec and Ontario there was a slight increase ; and in the western provinces a growth large in percentages but small in absolute numbers. A marked feature was the development of state aid, the federal and Ontario governments showing especial activity. All the varied knowledge needed for converting farming from a haphazard rule of thumb trade into a scientific profession,—the knowledge of the market, of the principles of underdraining, of the stock or seed best suited to the land's capacity and the consumer's need, of the efficient method of curing cheese or packing apples, of the means of averting and fighting pest

and disease, of where and how to sell,—the state sought to place at the farmer's disposal, taking the enterprising farmer's son to college, or taking the enthusiasm and the science of the college and the experimental farm and the department to the farmer, by bulletin, association, institute meeting and travelling demonstration.

The farming possibilities of the Pacific province were only beginning to be appreciated. The construction of the main and branch lines of the Canadian Pacific, and the mining discoveries in the southern mainland, brought immigrants and markets; the land in the lower Fraser valley, the Okanagan valley and other scattered districts was rapidly being taken up, but it was not yet put to the uses for which it was best fitted. British Columbia grew less than one-hundredth of the grain of Canada, and even of apples in 1891 its yield was only one-hundredth of Ontario's. Alberta was in the heyday of its ranching fame. The buffalo had scarcely been driven from the plains, annihilated by ruthless white hunters, when in 1881 an immense herd of Montana cattle was driven across the border to stock the Cochrane ranch near Calgary, and make the beginning of a great industry; ten years later there were over a quarter million cattle roaming the plains the year through, and horse ranches and sheep ranches shared attention. Western Assiniboia followed Alberta's development, and the eastern district paralleled Manitoba's. In the wheat-growing prairie the farmer was learning how to combat drought and frost, and hoping against hope for better prices and cheaper freights; mixed farming was being widely preached but little practised, in face of the gambling chance of a good wheat year; the bonanza farms, whether from the incapacity of the managers of the legendary type, who bought forty city watering-carts in a dry summer, or from the inherent difficulty of minute supervision, were proving failures. Ontario still provided the bulk of the settlers; foreign immigration grew slowly; English capital and English management played a bigger part than in any period before or since.

In Ontario and Quebec progress was greatest in the specialized industries. Wheat-growing continued to decline:

the staple barley trade with the United States was hard hit, first by the increasing use of substitutes for barley malt, and later by the McKinley tariff, and attempts to grow the two-rowed barley the English market demanded came to nothing; oats and corn and barley as well were grown increasingly as the live-stock industry expanded. Dairying continued to present far the brightest page in the farmer's record; soon Canada, which still meant the central provinces, was supplying half Britain's market for cheese, though attempts to increase the success in butter exports failed, whether from the difficulty of securing uniformity of quality or from the fact that butter flavour deteriorated, and cheese flavour improved, in the long interval between making and marketing, or from the greater profit of cheese-making at prevailing prices. The shipment of live cattle and sheep to England, where a few weeks' grazing gave a market finish, was seriously threatened in 1892, when, on the plea of the existence of pleuro-pneumonia in a Canadian shipment, the regulation requiring slaughter at the port of entry was applied to Canadian as it had previously been applied to other cattle. The Canadian authorities demonstrated convincingly that contagious pleuro-pneumonia did not exist in any Canadian herd, and in the hundreds of thousands of cattle slaughtered, no evidences of this disease were found; yet prohibition stayed. Doubtless there was something in the British official contention that the disease might develop suddenly, and that it was unwise to expose British herds to any risk, yet it was clear that the regulation was simply disguised protection for the British stock-raiser, a slight foretaste of what Britain's return to protection would mean. Hog-raising became important as a by-product of the dairy industry, the skim milk providing a cheap food. Side by side with the dairy and breeding industries, fruit-growing gained in importance, with the development of better methods of cultivating and of shipping and marketing, the old system of consigning fruit to commission agents in city markets, with all its chances of glut and dishonesty, giving way to the practice of shipping direct to order. Down by the sea, the growing of grain and roots and hay was stationary, the splendid advantages of Nova Scotia

for stock-raising and the dairy industry remained unutilized, and only in apple-growing was any notable progress made. Ontario retained its agricultural leadership ; according to the census of 1891 it produced half the hay and roots and three-fifths of the grain of the Dominion, half the sheep and cattle, and two-thirds of the swine sold, and more than two-thirds of the dairy products ; Quebec, however, especially in the later years, was lessening Ontario's lead.

The Fisheries : Slackening Growth

The harvest of the fisheries continued to expand, but at a slower rate than before. The twelve millions at which the catch was estimated by the federal authorities in 1877 had grown to eighteen in 1887, and twenty in 1897 ; these estimates, it must be borne in mind, are, from the nature of the scattered industry, only approximations, which, according to some experts, exceed, and according to some others, fall below the real worth, but they probably reflect with sufficient accuracy the broader changes from period to period. The government continued its fostering care, endeavouring to preserve the wealth of the sea from poaching foreigner and reckless citizen alike. The friction on the Atlantic coast which followed the ending of the Washington Treaty has already been noted ; on the Great Lakes the neglect of the states on the southern shores to protect their resources brought depletion and led to poaching in the better preserved fisheries in Canadian waters : a joint commission appointed in 1892 reported at length on the situation, but no joint legislation followed. Begun in 1882, in order to encourage deep-sea fishing, an annual vote of $150,000, increased shortly to $160,000, was distributed by the federal government to vessel- and boat-owners and fishermen, a petty dole of doubtful value compared to the results which equal concentrated expenditure would have brought. Seven years later an Intelligence Bureau was established, to give warning of the movement of fish and bait.

In British Columbia the salmon was still the only fish of commercial importance. Pelagic seal-hunting had practically

begun in 1878, when the Indian canoe, venturing a few miles from shore, was replaced by the white men's schooner sailing far to sea. Its rapid increase, it has been seen, led to complications with the United States and Russia; the first year under the Paris regulations, 1894, witnessed the largest catch on record, ninety thousand skins, but thereafter decline began. The whitefish and sturgeon of the north-west lakes found a market chiefly in the cities of the western states. The frontier lakes were fished with increasing vigour and systematic organization. On the eastern coasts the unfailing cod yielded the accustomed harvest, but the mackerel catch, whether because of destructive purse-seining or from more obscure causes, dwindled rapidly. The lobster pack grew steadily, but the outlook for the future became doubtful; the size of the lobsters canned decreased as the number of canneries increased. The cod still yielded the highest total in this period, but the salmon had taken second place, followed by the herring, the lobster and the mackerel.

The Ups and Downs of Mining

The mining industry continued its record of ups and downs, but on the whole progress was visible. The total value of the mineral production of Canada was estimated in 1886, when the Geological Survey issued the first comprehensive summary, at ten millions, and ten years later at twenty millions.[1] The distinctive features of this period were: in Quebec, the development of the asbestos industry; in Ontario, the opening up of the copper-nickel deposits of the Sudbury district; and in British Columbia, the beginning of lode-mining. In not a few instances the progress of railroad construction, both by facilitating transport and by cutting through important deposits, did something to foster the industry.

Gold-mining continued of little importance in the east,

[1] The estimates of mineral production, published formerly by the Geological Survey and latterly by the Mines Branch of the department of Mines, are based for the non-metallic minerals on the values on the spot, but in the case of other minerals they represent the value of the metal at New York market values; hence they do not indicate the amount actually received by the Canadian producer.

despite discoveries of quartz veins carrying free-milling gold in the Lake of the Woods district. In British Columbia the prospecting of the Kootenays in the early nineties led to important developments in the working of nearly all the important metallic minerals. The famous Rossland camp was located in 1890, but it was not until 1893 that the first shipments of gold-copper ores were made ; in 1895 a smelter was built at Trail, and by 1896 railway and smelting facilities brought the output over the million dollar mark. Also in silver and lead British Columbia now monopolized Canadian attention ; the rich galena ores of the Slocan district were discovered in 1891 ; in 1893 came railway connection and the finding of the St Eugene mine in the Fort Steele division ; by 1896 silver to the value of two millions and lead of three quarters of a million were produced. The copper contents of the Rossland ores gave British Columbia a place in the Dominion's copper development, but as yet the bulk of production was in the East. The Eastern Townships deposit continued to be worked steadily, while the high proportion of sulphur led in 1887 to the construction at Capelton of a profitable sulphuric acid plant. In Ontario there came in 1884, with the construction of the Canadian Pacific through the rocky Lake Superior district, the discovery, or rather the rediscovery, of rich copper deposits in a railway cutting near Sudbury. In 1886 the Canadian Copper Company, a United States corporation, began active development, shipping the ore to a New Jersey refinery; there it was found that nickel was present in large quantities, and soon the nickel overshadowed the copper, thanks to growing demand and to Canada's control of the bulk of the world's known resources. By 1891 the nickel produced annually was valued at two and a half million, though in 1896 falling output and prices had reduced the total value to half this sum. Nowhere in Canada, however, had iron-mining yet attained important heights, in spite of widespread endeavour.

Both in British Columbia, where operations were still confined to Vancouver Island, and in Nova Scotia, coal-mining showed steady progress. Ontario's petroleum industry grew slowly, the Lambton field being remarkable both

for the very low yield of the average well and for its long life; to an increasing extent, however, both refiners and consumers depended on imports from Ohio and Pennsylvania. Salt production fell rather than rose, the free imports from across the seas supplying the bulk of the Canadian demand. In Quebec the discovery of calcium phosphate or apatite in 1878 led to the development of a flourishing industry, which collapsed early in the nineties, when the opening up of rich deposits in the southern states and North Africa took away the market for this fertilizer. Meantime, the amber-mica, found usually in conjunction with the apatite, was becoming more valuable, as the electrical industry, demanding mica for insulation, developed, and thus compensation was secured. However, it was asbestos that gave Quebec an important place in the mining world. The building of the Quebec Central in 1877 across the serpentine belt at Thetford, in the Eastern Townships, led to its discovery; difficulty was found in marketing the fifty tons produced the first year, but its application to new uses created a demand in excess of supply; the price of crude number one fibre rose from fifty dollars a ton in 1881 to five times that figure in 1891. Later, industrial depression, and the difficulty of hand-picking the fibres from the rock, arrested progress, and in 1895 the value of the whole output was less than one-third of the value in 1890.

Manufactures: Transition and Readjustment

In manufacturing as well as in agriculture, this was a period of transition and readjustment. The small neighbourhood establishment, the grist-mill, or woollen mill, or carriage works, serving local needs, found itself hard put to compete against newer rivals working on a larger scale, and served by the ever more complex mechanism of marketing, advertising, and shipping and credit facilities, which enlarged the dominion of the city plant. And the larger establishments themselves, multiplied rashly on the strength of tariff favours or fleeting Western booms, found oftentimes the market overstocked, and combination the alternative or the sequel to bankruptcy. There was a notable revival in

manufacturing activity in 1879, thanks to the improvement in United States conditions and the adoption of the National Policy, but after 1882 came collapse, and from that day till well on into the nineties the cloud never lifted long. The slow development of the West, the stagnation of the rural East, the fall in farm prices, meant for the manufacturer cramped markets and decreasing purchasing power among consumers. Lacking the larger market, he lacked the conditions which might have made protection succeed.

Among the industries favoured by the National Policy, the cotton industry took first place. The Canadian market for all but the finest grades seemed assured by the high tariff, and capital jumped at the opportunity. Between 1879 and 1885 nineteen mills were established, bringing the number of spindles from about two to five hundred thousand. Half the mills went into producing plain greys, with the result that early in the eighties there was loom capacity for twice Canada's consumption; the opening of the Magog print-works in 1884 afforded a partial outlet, but the glut continued, and in 1885 cotton shares were selling at fifty cents on the dollar. Remedy was sought by bringing the mills under single control, reducing the output, seeking markets in the Far East,—by 1887 five and a half million yards were shipped to China,—specializing the work of the different mills, and adding new lines. Renewed expansion brought back trouble, and in 1891-92 a more permanent control of the market was secured by the formation of two syndicates, the Dominion Cotton Mills Company and the Canadian Coloured Cotton Mills Company, comprising nineteen of the twenty-six mills. In woollen circles, the chief development was the establishment of knitting-mills to manufacture hosiery and underwear, utilizing, somewhat tardily, American inventions which had made it possible to knit shaped garments to take the place of the earlier home-sewn flannels. The linen industry failed to take root, though the manufacture of cordage throve, and the self-binder called binder-twine factories into existence.

Flour-milling was transformed by the adoption of the Hungarian or roller process. The pork-packing industry remained stationary through the eighties, the number of hogs

slaughtered in 1876-77 not being reached again until 1890-91. The imposition of higher duties on meats in 1890, and the growing use of dairy by-products for feeding, helped both farmer and packer, and by 1895-96 the annual pack was six hundred thousand hogs. The utilization of waste products brought marked increase in economy and efficiency. The canning industries, fruit and vegetable as well as fish-preserving, assumed large proportions with improvements in technical processes and the dying out of popular prejudice against canned goods. The cheese industry continued to be the farmer's chief source of cheer in troubled days. Sugar-refining was revived by higher protection, over ninety per cent of the sugar for home consumption being produced in Canada. A social change was reflected in the lessening output of distilleries and the rapid increase of brewery products. Tobacco manufacturing throve, the tendency being to concentrate the manufacture of pipe and chewing tobacco into the larger establishments, while smaller cigar and cigarette factories sprang up.

Saw-mills and planing-mills continued among the most important of Canadian industries. Furniture factories grew in number and output, especially in Western Ontario, though dependence on foreign woods was growing with vanishing hardwood forests and changing tastes. The invention of mechanical and chemical methods of making paper from pulpwood gave Canada, with its vast resources of spruce and poplar and its unequalled water-power for turning the heavy grinding machinery which the mechanical process required, its opportunity ; the five small pulp-mills of 1881, with their sixty thousand dollar output, had grown to twenty-three by 1891, with an annual output exceeding a million. Paper-making as a whole showed little advance, however, the decrease of rag products balancing the increase in pulp products. The continued decline of the wooden ship struck a heavy blow at the Maritime Provinces, where shipbuilding was the most widespread industry. Lack of the larger capital and the more specialized skill required for iron or steel shipbuilding, and the high cost, not only of iron or steel plates, but of the fitting and furnishing accessories, prevented the develop-

ment of the newer industry on any important scale, and consequently the total tonnage built in Canada, which had been 183,000 in 1874, fell to 32,000 in 1886, and 16,000 in 1896, the lowest year since Confederation. The basic iron and steel industry was making progress slowly. The production of pig-iron, for which a bounty was established in 1883, fluctuated between twenty and sixty thousand tons in the next dozen years ; in 1894, for the first time the home production exceeded the imports. Quebec's charcoal furnaces and Nova Scotia's ill-fated Londonderry and prosperous Ferrona coke furnace, the latter in blast from 1892, contributed this total ; in Ontario not a furnace was in blast till 1896. Ontario's smelting industry was confined to the Copper Cliff works, where the copper-nickel ores were smelted and bessemerized into an eighty per cent matte, and shipped to New Jersey to be refined. The closing years saw the beginnings of British Columbia's notable metallurgical development, in the establishment of smelters in the Boundary district.

A marked feature of the period was the increase of combinations among manufacturers, and, in a less degree, among distributing agents. Especially in Ontario, manufacturing and mercantile life had attracted from the farm a proportion of the population, excessive in face of the slow expansion of the home market. In many industries, over-production had been caused by the adoption of immensely more productive machinery and processes, by the opening up of abundant natural resources such as oil and salt, and by the encouragement given to investment in favoured industries by the tariff. At the same time, with improved selling facilities, the whole Dominion was becoming one market, and competition more keen and relentless. Forced by losses or induced by hopes of gain, manufacturers turned to combination.

The favourite form adopted was the organization of agreements among independent producers for determining prices and conditions of sale. Perhaps the earliest and most enduring selling agreement was that covering stoves and other foundry ware, organized in 1865, and successful in its aim of preventing cutting of list prices. Other notable but less permanent organizations were formed in the biscuit,

confectionery, and leather trades, and, in another sphere, by the fire insurance companies. Occasionally the more developed form of the pool was adopted. Thus, Ontario oatmeal millers, finding in 1887 that there were sixty mills with a capacity of nine hundred thousand barrels, and that four of the biggest could supply the whole domestic consumption, amounting to one hundred and fifty thousand barrels, organized the Oatmeal Millers' Association, which agreed on a uniform buying price for oats, closed up ten mills, pensioning their owners, and allotted each of the operating mills a share of the output, subject to a fine for excess and a premium for short production. So the leading binder-twine and cordage factories of Quebec and the Maritime Provinces, with a capacity twice the home markets demand, organized a pool in 1884, which for the term of its existence, worked, as usual, chiefly to the advantage of the smaller establishment. Out and out consolidation was the solution adopted in the early nineties in the cotton industry and the agricultural implement industry, in which many once notable companies had been forced to the wall. The manufacturers of coffins and undertakers' supplies introduced an interesting variation by making a hard and fast alliance with the Undertakers' Association of Ontario. The latter body, organized in 1884, after adopting a Code of Ethics, which concluded with the assertion that there was 'no profession, after that of the sacred ministry, in which a high-toned morality is more imperatively necessary than that of a funeral director's; high moral principles are his only safe-guide,'[1] came down to details in rules providing that no new aspirant should be permitted to join the association without the consent of three out of four of the nearest members to the proposed place of business, and that members would purchase goods only from members of the Dominion Burial Case Association, who, in their turn, agreed to sell only to members of the other body. The Wholesale Grocers' Guild endeavoured to stereotype the existing system of distribution, from manufacturer through wholesaler to retailer and ultimate consumer, by arranging with the manufacturers of sugar,

[1] *Report of House of Commons Select Committee on Combinations*, 1888, p. 707.

starch and other staples, that the latter would not sell to non-members of the Guild, except at a fixed advance.

Where the tariff did not give undisturbed control, friendly agreements were entered into with similar organizations in the United States. The undertakers aforesaid, for example, finding that rejected candidates were bringing in coffins even over the high tariff wall, joined the Funeral Directors' Association of America, and arranged through their United States allies to prevent further sales to outsiders. The members of the coal rings which were formed in Toronto, Montreal, Ottawa and London, claimed in defence that combination had been forced upon them by the United States railways, which controlled the marketing of anthracite ; and no doubt it was the policy of these railways to co-operate with local organizations on both sides of the border, though there is room for question as to the amount of force required to induce the Canadian importers to combine. It is certain, at all events, that when a Toronto manufacturing firm dared to buy coal direct from a Buffalo company in 1886, the Toronto organization was able to have the latter fined a thousand dollars by the Buffalo association. Canadian jobbers of watches joined hands with United States jobbers and manufacturers to prevent dealers who were selling direct to the public by catalogue, from obtaining Elgin or Waltham movements. And as early as 1879 we find Canadian rubber manufacturers taking part in a New York conference for regulating prices for the whole continent. In no case, however, did these secret relations interfere with public protestations of the necessity of a high tariff wall to prevent too intimate relations with predatory foreigners.

V

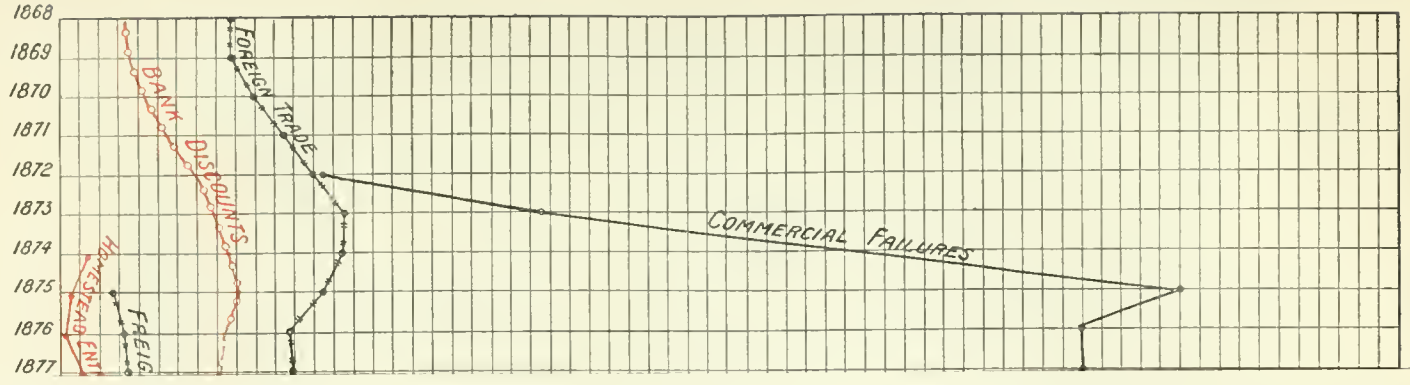
1896-1912 : THE COMING OF PROSPERITY

The Opening of the West

At last Canada's hour had struck. The settlement of the western plains had long dragged on with disheartening slowness, and eastern development, except in the two or three largest cities, had kept the same pace.

Then after 1896 a fortunate conjuncture brought a sudden and remarkable change. World-wide factors played a part; population and consumption were again overtaking production, and increasing gold supplies and other forces were raising prices ; wheat and cattle rose once more to profitable levels. The United States situation was of determining importance ; the rapid growth of its urban population, simultaneously with the ending of fertile homestead areas and the substitution of corn and coarse grains on much of the old land, exhausted by reckless wheat-mining, made it eminently necessary to seek new sources of wheat supply. Western Canada offered limitless land, cultivated by the methods familiar in the western states, and available at a fraction of the price for which the emigrant's Iowa or Minnesota farm would sell. Individual farmers and land companies saw the harvest to be reaped in the inevitable rise of land values, and the northward trek began. In Canada itself, experience was enabling the western farmer to cope more effectively with frost and drought, and bountiful harvests in areas once stamped barren lured the home-seeker.

The treasures below the soil were discovered and developed in the same period as the treasures in the soil. The gold and silver and lead and copper of Southern British Columbia, the bonanza creeks of Klondike, the rich ores of Cobalt, proved lodestones of population. Here as elsewhere it is questionable whether the wealth taken out equalled the wealth put into prospecting and development, much less the money paid for stock; but the discoveries served a purpose by giving a spectacular advertisement of the country, and leading to consideration of its permanent sources of wealth. The more prosaic but more paying riches of the coal-mines of British Columbia and Alberta, of the iron ores of Newfoundland's Wabana, or of Michipicoten, were now exploited. The approaching exhaustion of the timber and especially the pulpwood resources of other countries gave new value to Canada's forests. The rapid development of hydraulic engineering skill revealed the value of the asset her water-powers constituted. On all sides the natural wealth of the country called for men and money to develop it.


1868
1869
1870
1871
1872
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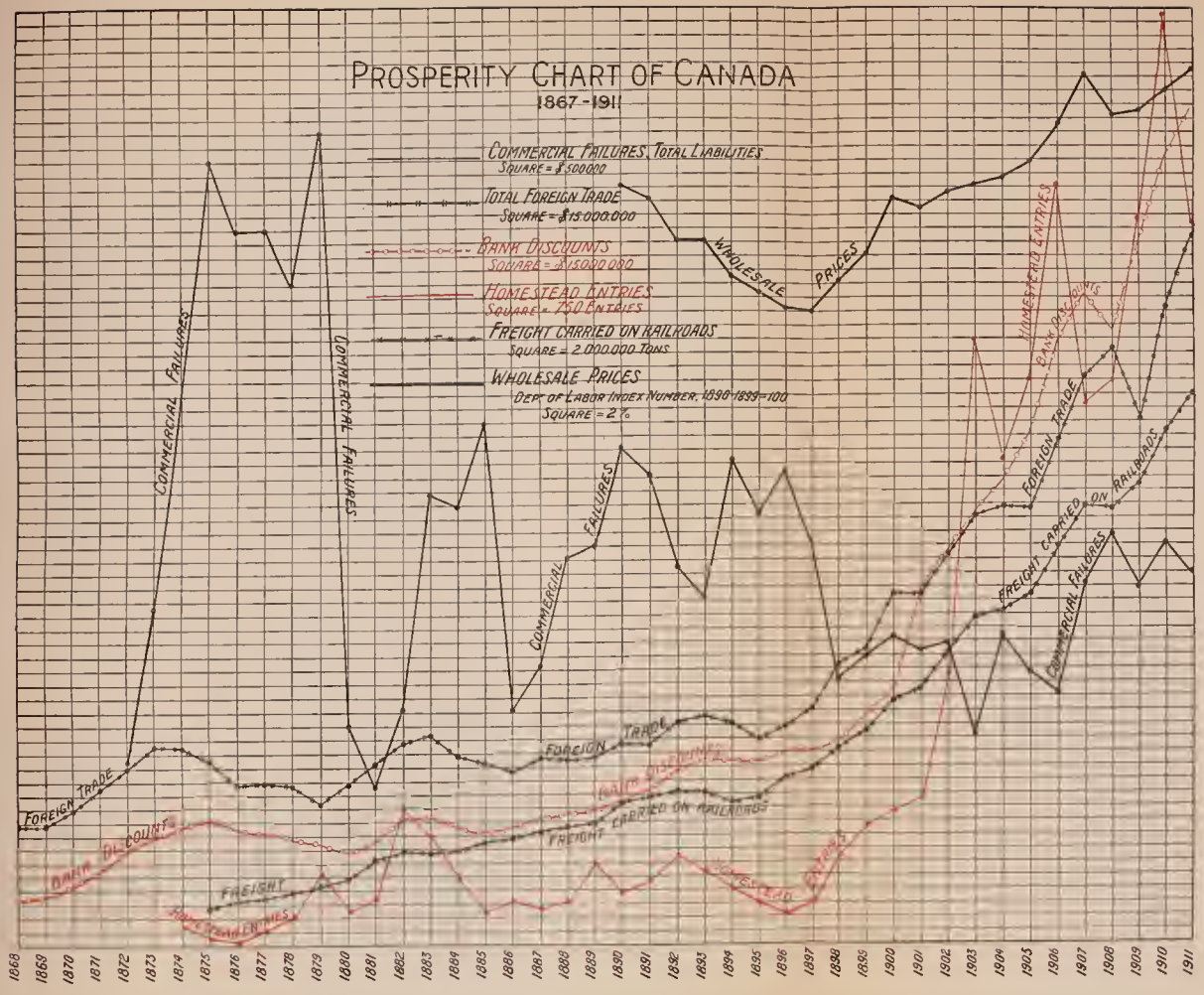
1875
1876
1877
FOREIGN TRADE
BANK DISCOUNTS
HOMESTEAD ENT
FREIG
COMMERCIAL FAILURES


PROSPERITY CHART OF CANADA
1867-1911
COMMERCIAL FAILURES, TOTAL LIABILITIES
SQUARE = $500000
TOTAL FOREIGN TRADE
SQUARE = $15000000
BANK DISCOUNTS
SQUARE = $15000000
HOMESTEAD ENTRIES
SQUARE = 750 ENTRIES
FREIGHT CARRIED ON RAILROADS
SQUARE = 2,000,000 TONS
WHOLESALE PRICES
DEPT OF LABOR INDEX NUMBER: 1890-1899=100
SQUARE = 2%
COMMERCIAL FAILURES
COMMERCIAL FAILURES
WHOLESALE PRICES
FOREIGN TRADE
BANK DISCOUNTS
FREIGHT
HOMESTEAD ENTRIES
FOREIGN TRADE
BANK DISCOUNTS
HOMESTEAD ENTRIES
FREIGHT CARRIED ON RAILROADS
COMMERCIAL FAILURES
1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911

The Flow of Population : Inward, Outward, Westward, Cityward

Men and money were both to be had in plenty. The British Isles still sent their swarms over seas, though land reform was checking the drain in Ireland. In Western Europe, prosperity, more even distribution of wealth, lack of the spirit of adventure, or government opposition, had lessened the outward flow, but in Southern and South-Eastern Europe the development of facilities for transportation and the activities of the agents of oversea governments or mine-owners or railroad contractors, had set a flood in motion, which more than balanced the western decline. British, and in a less degree, French and Belgian and German capital were seeking new openings for investment, and turned to Canada because the old fields had been harvested. The United States was largely providing its own capital, Argentine rails and South African mines had lost their glamour, Australian failures deterred investment, and at last Canada had her chance. Thanks to the energy of her own sons and of enterprising Americans, her capabilities were being proved ; and, once they were proved, the flow of European capital began.

State action co-operated to draw the needed men. The forces of publicity were employed with a fertility of resource unparalleled in governmental record. The change of administration brought new blood into the immigration department. The immigration campaign, which for some years had become stereotyped and routine-bound, hampered by lack of funds, was reorganized and given new vigour. The United States field was first developed. In 1897 advertising was placed in five or six thousand United States newspapers ; hundreds of farmer delegates were sent on free excursions through the West ; press associations were given the freedom of the plains ; agents were awarded bonuses on every emigrant dispatched. The results of these business methods, acting in conjunction with the more impersonal factors already cited, may be briefly summarized in the statistics

of the immigration from the United States: 1897, 9000; 1912, 133,000.

Then in 1901 the same methods were applied in Great Britain and the same results followed. The influx of United States farmers afforded the most convincing proof of Canada's superior advantages. The railway companies with lands to sell or traffic to seek, vigorously supplemented the government campaign. Various provinces, especially in the latter years of this period, endeavoured to obtain the immigrants required for their especial needs, Saskatchewan and Ontario advancing partial fares to farm workers or domestic servants, British Columbia aiding the Salvation Army's emigration activities, and Nova Scotia, and later New Brunswick, arranging through loan companies to advance the bulk of the purchase price of farms. The number of British immigrants rose from an average of ten thousand in the last years of the nineteenth century to fifty thousand in 1904, and one hundred and thirty-eight thousand in 1912. At the end of this period, Canada has become the chief destination of emigrants from the United Kingdom, far surpassing the United States, though Australia, imitating the Canadian policy of publicity and offering liberal reduced or advanced passages, was again becoming a close rival. Between them, the Commonwealth and the Dominion now attracted the great bulk of British emigrants; while as late as 1900 only one of every three who left the United Kingdom went to other sections of the British Empire, a dozen years later four of every five stayed under the flag. A larger proportion of the British immigrants were townsmen than in the case of the United States or European influx, and naturally a greater proportion settled in the Eastern towns, which had less elastic assimilating powers than the Western prairie. Consequent congestion made it necessary in 1908 to curb the indiscriminate activities of charitable societies in Britain, and to 'hand-pick' assisted immigrants, with gratifying results both in quality and in numbers.

Meantime the Continental immigration was increasing at almost equal pace. The hostility of the majority of European governments to open emigration propaganda hampered activities in the most desirable quarters. Ruthenians and

Doukhobors, Russian Jews and Italians, formed the bulk of the Continental immigration. Much hostile criticism was aroused by the difficulties these newcomers presented in helping to form a united and homogeneous nation. It was generally recognized, however, that Canada was more fortunate than the United States, in that the bulk of her Slav immigrants settled on the land, instead of congesting the large cities and mining areas. The proportion of Continental immigration, which in 1898-1900 had been nearly forty-five per cent of the whole, fell in 1910-12 to half that proportion. In the whole period from 1897 to 1912, the total immigration was over two and a quarter millions ; the British Isles sent 961,000, the United States 784,000, and the rest of the world 594,000.

The total increase in population in this period was marked ; between 1891 and 1901 population grew from 4,833,239 to 5,371,315, and in the following decade to 7,204,838, practically double the population of forty years before. Great as was the increase in the latter period, it proved disappointing to many who had based their calculations on the great flood of immigrants reported in the government statistics, amounting for the decade to about 1,600,000, or within a quarter million of the total increase. It had been overlooked, however, that there was a constant, if slackened, drift of native- and foreign-born to the United States, and that the eastward flow of returning tourists, dissatisfied emigrants, and successful settlers returning for a short or longer stay in their native land, amounted to large dimensions ; in 1910, for example, the British Board of Trade recorded 156,000 passengers to Canada and 41,000 returning, and similarly, it may be noted, to avoid misconception, 132,000 outward to the United States and 58,000 returning, and 27,000 to South Africa with 18,000 returning. These allowances made, the results gave good ground for content.

Within Canada migration from one section to another proceeded much more rapidly, with the happiest results both for the industrial development of the newer regions and the national unity of the Dominion. Ontario sent her thousands to all the west, including her own upper territory ; Quebec

expanded towards the north, and on her Ontario and New Brunswick borders; the stream of the Maritime Province emigration was diverted to a great extent from New England to the newer maritime province of the Pacific; Manitoba's pioneers and sons of pioneers sought a farther west. In consequence of this movement, the emigration to the United States slackened, though it did not entirely cease, nor was it likely entirely to cease, so long as neighbouring United States cities, like Canadian cities, stir the ambition of the farm and village youth. The number of native-born Canadians resident in the United States grew only by eleven thousand between 1900 and 1910, from 1,181,255 to 1,192,605, as against increases of one hundred and eighty thousand in the nineties, and two hundred and eighty-three thousand in the eighties.

More disturbing were the figures showing the steady drift from farm to city. In spite of the opening of millions of acres of new land to settlement, the rural population of Canada fell from sixty-three to fifty-five per cent in the decade from 1901 to 1911. Even in the four western provinces the urban population showed a much greater relative increase than the rural, and approached the rural growth in absolute amount, while in every one of the eastern provinces except Quebec there was an actual decrease in the country population. In the East there was little to surprise, if much to disturb, in this cityward drift. It was a phenomenon common to all twentieth-century lands, to England and to Prussia, to Vermont and Ohio and Iowa, to Australia and New Zealand, as well as to Ontario and New Brunswick. The inclusion of one farm task after another—weaving, tool-making, soap-making, slaughtering—in the scope of the urban factory; the improvement of farm methods and farm machinery, making it possible to do the work still left to the farm with fewer hands; the encouragement given the city as contrasted with the country, by tariff favours; the increasing array of financial and commercial middlemen required as communities became less self-sufficient and more dependent on world-wide exchanges, rendered the shifting inevitable. The prizes of wealth and power the city held, the longing for the education or the amusement or excitement it would offer, perhaps determined

rather who, than how many, should go. In the West, special circumstances explained the same tendency. The Pacific province was not pre-eminently agricultural ; the rich delta or valley lands which bulked largest in its farm wealth were closely settled ; its mineral wealth created the mining-camp and mining-town ; its manufacturing and especially its transportation advantages called cities into being. On the plains and prairies the process of specialization, which has been already noted, was carried to the extreme, and the rancher or wheat-farmer had to buy from towns, not only his implements and his clothing, but his butter and eggs and fruit. From the valley of the Red River to the valley of the Peace, towns and cities sprang up as distributing centres for all the farmer or rancher had, and for all he lacked, each with its quota of business or professional men, its regiment of real estate agents, and more slowly with its local repairing and manufacturing plants.

Land and Railway Policy

Unquestionably the rapid growth of the West was due in great part to the maintenance and extension of the policy of free land for the settler. No other country offered the land-hungry settler such a generous boon. The Dominion had abandoned the early plan of deriving a revenue from the sale of lands to assist in railroad building, and for years had given away its broad domain, the even sections to settlers, the odd to railroads. After 1896 no more land grants were given to railroads ; cash subsidies or bond guarantees took their place. The odd sections, however, were not thrown open to settlement for a dozen years. By 1906 it was estimated that some thirty-two million acres had been given to railroad companies, and that almost exactly the same area had been homesteaded or bought by cash or scrip. Both railroads and settlers had chosen their lands chiefly in the broad horseshoe belt that lay between the wooded north and the semi-arid south. Experience proved the worth of both the regions previously passed by, and the tide of settlement swept on in broader course. In 1907 a new Land Bill was introduced,

opening the still unclaimed odd sections to homesteaders, and reviving the discarded practice of pre-emption, entitling any homesteader who had not received a pre-emption to claim an additional quarter section by paying three dollars an acre and fulfilling the additional three years settlement duties. It was argued that this policy would make it possible to finance the construction of the Hudson Bay Railway without throwing any burden on the general treasury, and that it was desirable in itself, since the conditions of farming in the unsettled areas made a larger farm unit than a single quarter section imperative. Strong opposition was offered to the pre-emption proposal, on the ground that it would mean the alienation of nearly all the immediately available land without substantially increasing settlement. A year later a compromise was reached ; pre-emptions and purchased homesteads were restricted to the area between Moose Jaw, Battleford and Calgary, where dry farming and summer fallowing clearly required a larger farm unit than one hundred and sixty acres, and all the remaining area was reserved for the quarter section homesteader. In the following year, the size of homesteads in the British Columbia railway belt, where more intensive farming was to be expected, was reduced from one hundred and sixty to forty acres.

The rush for the lands of ' the last best west ' more than met the expectations of the framers of this land policy. By 1906, it has been seen, the area granted in homesteads, pre-emptions and sales barely equalled the lavish grants to railways ; five years later the former area had doubled while the latter had not been increased. In 1906 the entries for homesteads, some of course destined to be cancelled for non-fulfilment of conditions, covered an area equal to that of Massachusetts and Delaware combined ; in 1908 a Wales was given away ; in 1909 five Prince Edward Islands ; while in 1910 and 1911, in homesteads, pre-emptions and veteran grants, Belgium, the Netherlands and two Montenegros were carved out of the wilderness. Not even the imperial vastness of the western plains and prairies could ensure long continuance of this magnificent generosity. By 1912 there was comparatively little land open for homesteading except in

the northern half of the prairie provinces. Of the 440,000,000 acres they contained, half was estimated to be available for cultivation. Of this total nearly 120,000,000 had been disposed of by that year, including 68,000,000 in homesteads, pre-emptions, sales and special grants, 32,000,000 to railways, 8,000,000 to the Hudson Bay Company and 8,000,000 as school endowment. Yet, while the end of the day of free land was fast approaching, the possibilities of western production were only beginning to be realized. The area in all grains in the same year was only 16,000,000 acres, and the 180,000,000-bushel wheat crop was harvested from some 9,000,000 acres, less than three times the road allowances in the surveyed area.

Although land grants were no longer given by the federal government, railroads continued to receive lavish state aid in the form of bond guarantees from the Dominion, as well as land grants or guarantees from the provinces directly interested. The success of the Canadian Pacific, and the prospect of exploiting new regions as vast as those it served, made it easy to secure capital. Each day of the twentieth century has seen on the average two miles of new road built. Between 1901 and 1912 the Canadian Pacific's gross earnings grew from thirty millions to one hundred and four, and the stock shot up from ninety to two hundred and eighty. Two new transcontinental lines were carried almost to completion, the one the outcome of a partnership between the Dominion government and Canada's oldest system, the Grand Trunk, designed to open up the untapped north, built at enormous first cost, but certain of low operating expenses ; the Canadian Northern, expanding from small mid-west beginnings to continent-spanning greatness, built rapidly and cheaply with the intention of improving the construction as traffic warranted, a monument to the practical engineering capacity and the financial and legislative influence of its partner-owners, Mackenzie and Mann. Branch lines were thrown out in all directions throughout the prairie west, through the fertile valleys of British Columbia, in Quebec and Ontario's new north and thriving south, and in undeveloped sections of the Maritime Provinces ; hitherto the settler had preceded

the railroad, but now the railroad oftentimes pioneered settlement. The consolidation of the smaller lines in one or other of the three great dominating systems went on apace. Ocean fleets, hotels at strategic points, town-sites, irrigation schemes, ready-made farms, employed the railroader's surplus energy, and contributed notably to the country's development. And while it was chiefly the east and west traffic that was served, north and south connections were increasingly sought. United States railroads reached up for a share of Canadian traffic, the Great Northern interests securing a footing in the West, the New York Central in the East. But for every mile which United States railroads controlled in Canada, Canadian roads controlled six in the United States, seeking outlets and traffic on Puget Sound, in Chicago and the north-western states, in Boston and in Providence.

The Compromise with Protection: Free Traders in Office

The tariff and tariff relations with the United Kingdom, the United States and other countries have, with passing exceptions, bulked larger in Canadian discussion and legislative action than any other economic issue, whatever its real relative importance. For a time, it appeared that the tariff might be 'taken out of politics,' that is, that both parties would subscribe to the full protectionist platform, but the controversy soon flamed out afresh. The belief that free traders and protectionists alike have exaggerated the importance of tariff policy does not, however, relieve the narrator of things as they actually and unideally happened, from the necessity of recording the chief developments in the attitude of the state on this issue.

The liberal party in 1896 waged its campaign on the platform of freer trade with the world, drawn up in the Ottawa convention three years before, though other issues helped to determine the result of the election. Whatever private assurances were given to manufacturers, on the hustings and in the press protection was denounced in unmeasured terms as robbery and oppression and a blight on industry. After

the victory at the polls, some steps were taken to carry out the pledges of reform. The granting of the British preference meant a substantial reduction on many important articles of consumption. Relief was afforded by the reduction or abolition of the duties on Indian corn, binder-twine, barbed wire, pig-iron, flour and refined sugar. Classification was simplified and minor readjustments made in many schedules. A provision was enacted for lowering the duty on goods controlled by a combine. Yet with all this tinkering, the tariff remained substantially the National Policy tariff of the old régime. The reductions made were balanced by the maintenance and extension of the expiring bounty provisions. In 1897 the iron and steel bounties were renewed for five years, the bounty on pig-iron made from Canadian ores raised from two to three dollars a ton, and the same bonus was offered for the manufacture of puddled bars from pig-iron made in Canada and of steel ingots manufactured from ingredients of which at least half by weight consisted of Canadian-made pig ; new ground was broken in the provision for paying two dollars a ton on pig-iron made in Canada from foreign ores. In 1899, three years before the previous act expired, and just when the promoters of the Dominion Steel Company were preparing their prospectus, a new law was passed assuring the continuance of the bounties, on a descending scale, until 1907.

The reasons for this failure to live up to the pledges of opposition days, and for the mounting tide of protectionist feeling which marked the next few years, are not far to seek. It was the stagnation of the late eighties and early nineties which had made men doubt the efficiency of protectionist panaceas ; the prosperity that followed led the manufacturer to strain every nerve to retain control of the expanding western market, whose benefits he was beginning to realize, and restored the waning prestige of the doctrine with the general public. The Dingley Act continued to stir resentment easily directed into protectionist channels. Governments and oppositions are never as far apart in opportunist practice as they feign in the extremities of debate. Wider experience may have brought honest change of heart, or realization of the benefits of a well-filled campaign chest

silenced conscience. The very success of the nominally freer trade party meant that there was no longer an opposition vigilant against protectionist demands. Aside from the party, there was not in Canada any adequate agency of protest ; the party press with a few notable exceptions, followed the administration ; the consumers, scattered in residence and scattered in interest, could not compete in organization with the manufacturers, concentrated in residence and in interest.

It was therefore not surprising that in 1902 the manufacturers began a vigorous campaign for still higher protection, that it seemed to carry articulate public opinion with it, and that many leading liberals, including a member of the cabinet, J. Israel Tarte, gave vociferous support, until Sir Wilfrid Laurier was compelled to show him who was the real master of the administration. The agitation resulted in a scaling down of the British preference in 1904 and a promise by the minister of Finance in the same year to introduce a maximum and minimum tariff ; it was distinctly understood by the Manufacturers' Association that the existing tariff would serve as the minimum, and that the maximum would involve a substantial increase. A Tariff Commission of three cabinet ministers travelled from end to end of the country in 1905-6 seeking light to aid in the coming revision, and found it in abundance. Manufacturers crowded every session urging the necessity of higher rates, but the surprise of the day came in the vigorous and effective opposition organized by the farmers of Ontario and the West. Thanks to this unexpected revolt, the new tariff of 1906-7, while making many revisions upward as well as downward, accepted the existing level as the maximum and offered reductions to countries disposed to grant reciprocal favours. The sequel came in 1910 in the renewed demand of the farmers, especially of the grain-growing West, for lower tariffs and wider markets, and in the reciprocity negotiations which followed.

Meantime the bounty system was being still further extended. In 1903 a bounty of six dollars a ton, terminated in 1910, was offered for the manufacture of rods made in Canada from steel produced in Canada from ingredients at

least half of which consisted of pig-iron made in Canada, conditionally on the rods being used in Canada for the manufacture of wire ; patriotic protectionism could no further go. A bounty of a cent and a half a gallon on crude petroleum offset the reduction of duty on the refined product, and the imposition by the United States of an export duty on Manila fibre shipped from the Philippines to any country but itself, was met by an equivalent Canadian bounty on the amount used in making binder-twine and cordage. In 1907 the iron and steel bounties were once more extended, with special bonuses to encourage smelting by electricity. In the ten years ending in 1910 the bounties reached the total of eighteen million dollars, and were solemnly defended by the Hon. W. S. Fielding upon the ground that the additional duties paid by the people of Canada upon the imports into the districts favoured by the bounties were still greater. The bounties undoubtedly are largely to thank for the present extensive development of the iron and steel industry, though in several instances they were discounted by promoters in determining how much water the stock would stand, and went into their pockets rather than into the upbuilding of the industry.

Another interesting development was the invention in 1904 of a unique fiscal device, the anti-dumping duty. As amended in 1907, the measure applied to otherwise free as well as to dutiable goods, and provided that, if articles of a kind made in Canada were sold for export to Canada at a price less than the ordinary home market price, a special duty equal to the rebate given would be imposed. The duty was especially designed to cover iron and steel products, and successfully balked the practice of United States, British and German manufacturers in disposing of surplus goods cheaply abroad, though the very Canadian steel companies in whose interest it was imposed were not held back by any compunction from dumping in other countries at lower than home prices whenever opportunity offered. It was an ingenious attempt to prevent the demoralization caused by 'slaughter' sales, without setting up as a permanency the fifty or sixty per cent duties otherwise necessary to bar such imports.

A generation after the adoption of the National Policy, it is still an open question whether protection has helped or hindered Canadian development. So far as the economic bearings of the case go, the fact that one-sided free trade would compel the Canadian manufacturer to share his small market with the United States manufacturer, while he himself would be barred from the larger market and from the economies that go with the larger field and scale of production, must never be left out of reckoning. It may be, again, that many of the scores of United States corporations which have established branch factories in Canada would have attempted to supply the Dominion from the other side of the border, but for the tariff wall. Yet, as has previously been suggested, to say that a certain industry would not thrive in Canada under free trade is not necessarily to imply that it could thrive under protection. Many industries have succeeded, in protected as well as in non-protected lines, and are able to meet foreign competition in price and quality in the open markets of the world. But, where an industry has been protected for twenty or thirty years, and still demands thirty per cent protection, thirty points of advantage in a hundred, it must be either that it is an industry unfitted to the country's conditions, or that even the whole Canadian market is not large enough to permit economical development, or that the cost of production has been raised by the high cost of protected materials or of labour, or else that the tariff is wanted to guarantee extortionate profits. In any case, protection to such an industry must be rested on other than economic grounds. It may, indeed, be urged that it is worth some economic sacrifice to retain at home the boys who would otherwise have drifted to the cities south of the border. The drift, however, did not cease because of the adoption of protection ; it was, on the contrary, only the recent expansion in farming and mining and lumbering and the consequent growth in population that have brought success to most of our protected industries. To-day we are not so eager as we once were to provide alternatives to farming life, and there is room for a nice dispute between those who maintain that the protected home market has made farming pay, and those

who urge that except as regards milk or fruit or vegetables, the farmer sells at the world's prices and buys at protected prices, which cripple and hamper the primary industries, and amply account for the rural depletion of recent years. So far as the political bearings of protection go, it is to be set down to its credit that in former days it helped to create a common national spirit, and on the debit side that it now is creating a dangerous sectional divergence, only to be ended by doing away with protection or by making the West as well an industrial district. As to the effect on political life, few would question that it has been a source of corruption and of sordid standards of public service, though it might be replied that our railroad bonuses and our public contracts would have bred the grafter had the tariff never existed. But protection is here, and whether or not discrimination is introduced by substituting the impartial investigation of a tariff commission for the biased demand of the interested manufacturer, it is likely to stay—so long as it stays in the United States, whence it came.

Imperial Preference : Fielding and Chamberlain

For the first time in many decades trade relations with the United Kingdom and the other sections of the British Empire now took foremost place in discussion and in action. The introduction of the first Fielding tariff in April 1897, establishing preferential tariff treatment of Great Britain and other countries offering reciprocal terms, marked the beginning of an era important in the fiscal history not only of Canada, but of all the other self-governing states of the Empire. Years of talk about mutual imperial preference had seemingly ended in talk, when the new administration, by deciding to grant a preference to the United Kingdom, unconditionally, and without waiting for its adoption of a protective and preferential policy, gave an effective lead.

The decision of the Laurier government to take this momentous step, foreshadowed in the resolution moved by Louis H. Davies (afterwards Sir Louis) when in opposition, in 1892, had various grounds. In the main it was an imple-

menting of campaign promises of freer trade, a reduction of the tariff made primarily in the interest of the Canadian consumer. The desire to offer a practical testimony to the special bonds which united the different states of the Empire, and especially the filial affection felt for the motherland, played its part. The McKinley and Dingley tariffs, emphasizing in unmistakable terms the indifference of the United States towards Canadian advances, united Canadian sentiment in turning elsewhere. And those who desired to see the establishment of reciprocal imperial preference might well contend that the surest way to bring it about was not to demand it, not to haggle for evenly balanced favours, but to grant unconditional preference and trust to gratitude effecting more than importunity. Time proved the correctness of this position : the existence of the Canadian preference forced the abrogation of the Belgian and German treaties, and gave the British advocates of tariff reform a basis for agitation. In so far as Canada was concerned, the British preference meant a step toward free trade, and the Cobden Club was justified in presenting its medal of honour to Sir Wilfrid Laurier ; but in its effect upon the British situation, it made for the return of protection tempered by preference, rather than for the strengthening of free trade.

At the outset the reduction took the form of a reciprocal tariff rather than of an exclusively British preferential tariff. A horizontal reduction of twelve and a half per cent in all customs duties except those levied on alcoholic liquors and tobacco, to be increased a year later to twenty-five per cent, was granted on goods produced by and imported direct from countries which on the whole gave Canada equally favourable tariff treatment. It was the expectation of the Canadian government that the reduction would apply only to the United Kingdom and a few of the low-tariff colonies, and that the omission of specific reference to Great Britain would prevent the Belgian and German treaties from coming into operation to extend the same terms to these and other countries. The position was untenable. As the offer ran, it was possible in two ways that the reduced terms would be generalized. The existence of special terms to the United

Kingdom, whether or not it was specifically named in the statute, would on any reasonable interpretation entitle Belgium and Germany to the equal terms the treaties pledged, and so the law-officers of the crown, to whom the matter was referred, gave their opinion. Forthwith the reduced terms were granted to these states, and, by the automatic operation of other treaties entitling most-favoured nations to treatment as favourable as that granted any other foreign country, were extended to France, Spain, Austria-Hungary and other nations. Even had these Belgian and German treaties not existed, it was possible that some low-tariff foreign country like Holland would qualify under the test of equally favourable terms, and thus again provide a starting point for the operation of the most-favoured-nation treaties.

The first hindrance in the path of an exclusive British preference was removed by the decision of the government of the United Kingdom in July 1897 to denounce the treaties with Belgium and the Zollverein, the denunciation to take effect one year later. The year 1897, the year of the sixtieth anniversary of Queen Victoria's accession, and the year of the third colonial conference, saw imperial sentiment rise to new heights. The unconditional Canadian offer overcame the long hesitancy of British statesmen, none of whom were yet prepared to discuss reciprocal preference ; even Joseph Chamberlain, who was turning in this direction, still halted at the stage of absolute free trade within the Empire as a necessary preliminary to the establishment of a tariff wall around the Empire. Sir Wilfrid Laurier, the most striking figure of the conference and the Jubilee festivals, carefully avoided the least semblance of a demand for preference in return, and thus succeeded in disarming free trade prejudice. The abrogation of the treaties left the commercial relations between the United Kingdom and Belgium and Germany in an unstable position ; a new treaty was later negotiated with Belgium, but the enjoyment of most-favoured-nation treatment in Germany has since rested only on an annual resolution of the Bundesrat ; it was, however, primarily against Canada, as will be seen later, that German resentment was directed.

The British government had done its part, and it remained for the Canadian government to take the further step required to confine the lower terms to the Empire. This step was taken in August 1898, when the reciprocal tariff was repealed and replaced by a specifically British preferential tariff, on the goods of the United Kingdom, Bermuda, the British West Indies and British Guiana, and any other colony or possession which offered Canada equally favourable treatment. At the same time it was provided, to prevent the importation of foreign goods through Britain, that at least twenty-five per cent of the completed cost of manufactured articles imported must represent British labour in order to entitle the application of the preferential terms. In July 1900 the preference was increased from one-fourth to one-third. Four years later, in response to loud complaints from Canadian manufacturers who felt keenly the pressure of British competition, the minimum tariff on woollens, especially cloths, tweeds and wearing apparel, was raised from twenty-three and a half to thirty per cent, and on twine and cordage from sixteen and two-thirds to twenty, while slight reductions were made on china and window glass. In 1906-7 the uniform horizontal reduction of one-third was replaced by a preference varying with each article, somewhat reducing the amount of the preference in the majority of cases ; the range of advantage varied from two and one-half to fifteen per cent *ad valorem*. In 1907 the administration was given power to determine by order-in-council a date after which the preference would be given only on goods imported through a Canadian port ; it was understood that this restriction would not be imposed until the completion of the Grand Trunk Pacific had provided facilities for handling the expected increase of imports entering through Halifax and St John.

Meanwhile, the question of reciprocal British preference was assuming new importance. It became a practical issue in the United Kingdom in 1903, when Joseph Chamberlain, then colonial secretary, launched his vigorous campaign for the reversal of Britain's traditional free trade policy. Tariff Reform, as the new agitation was named, had a threefold

object : protection, retaliation and imperial preference. The home manufacturer and the home farmer were to be protected by duties on manufactures and on foodstuffs, excluding maize and bacon, as being foods of the poor. This tariff, further, was to serve as a weapon to secure admission to foreign protectionist markets. And, finally, the Empire was to be consolidated and outlets for the products of its various parts assured by giving the colonies, subject to the greater favours accorded the British farmer, exclusive control of the market of the United Kingdom, and giving the British manufacturer, in the industries which the colonies had not yet developed, a monopoly of their market for manufactures.

The revival of protectionist sentiment in the United Kingdom had been foreseen for some years. It was an inevitable incident of the growth of rivals challenging its commercial supremacy. Relatively, the United Kingdom was losing her lead ; absolutely, her foreign trade had been for some years slow and fitful in its increase. The persistence of protection among other nations seemed to discredit the expectations of Cobden and Bright. Protection promised to cure the unemployment which lay at the root of so many urban social problems, and the rural decay which was threatening British life at its core. Free trade had become a traditional dogma, not a vital creed ; its very supremacy for forty years had bred up a generation unaware of the principles on which the policy had been based, and ready to listen to the first plausible attack. The revival of imperialist sentiment, with its mingling of high and low motives, the loss of the old confidence in Britain's own unaided strength, the desire for a protected preserve for her manufacturers, led many to believe that power and plenty alike would be served by a close union of the Empire by commercial bonds. The era of cold neglect of the mere colonial gave place to the era of gushing flattery for 'our sister dominions.' Increasing demands on the treasury for war and war armaments and social reform made it necessary to find enlarged sources of revenue, and this revenue must come from taxes on the articles consumed by the masses, if it was not to come by further taxes on the incomes and inheritances of the classes. Party

exigencies made it desirable to distract attention from the bungling methods of the conduct of the war in South Africa. The time had come, and with it the man, the ablest and hardest-hitting of campaigners, and the one man who of late years had aroused enthusiasm in colonial quarters.

The agitation thus aggressively begun had far-reaching results in the fate of cabinets, the alignment of parties, the bed-rock discussion of the condition of England question. Its own success or failure was long undecided. For a time it bid fair to sweep Britain ; the Unionist party, with few stragglers, the metropolitan press, colonial sympathizers, gave powerful advocacy. Then reaction came. Inquiry showed that the United Kingdom was not so helpless in the commercial struggle as had been charged, and each new year falsified dismal prophecies with its record of rapidly expanding trade. Challenge gave the principles of free trade new life. Recognition of the inability or reluctance of the colonies to offer any great opportunity for expansion, of the dependence of British foreign trade on cheap food and raw materials, of the peculiar position in which Britain was situated for a campaign of retaliation, grew stronger. New issues of taxation, of the power of the Lords, of social reform, distracted attention. The powerful leader of the movement was struck down by crippling illness, and of the new leaders that came upon the stage, the ablest were in the free trade ranks. And thus the policy of mutual preference halted, though at any time the swing of the pendulum might bring back to power a party more or less pledged to protection.

In Canada the attitude was equally diverse. The popular interest in Chamberlain, who was thought by many to be the first British statesman of broad and sympathetic imperial vision, secured at first a favourable hearing for his plans. Imperialists who assumed that trade was the only cement that could bind the Empire, protectionists who wished to see protection in Canada buttressed by its adoption in the sole great free trade nation, gave strong support ; imperialists who feared tariff bargaining would make for friction rather than for harmony, nationalists who disliked any exclusive bonds, free traders who saw their model crumbling, all

opposed. Manufacturers were sympathetic in general terms, some on imperial grounds, others for economic reasons ; the Canadian Manufacturers' Association repeatedly and strongly expressed its hope that Chamberlain's cause would triumph. There was, however, a notable reservation made which cut the ground from underneath the British Tariff Reform campaign on its preferential side ; not only must no reduction be given which would expose existing Canadian manufacturers to loss of trade, but the association declined to give the pledge Chamberlain had invited in his Glasgow speech and had later tried to qualify, to leave to Britain the market for those goods which Canada did not as yet attempt to supply ; what they had they would hold, and what they could reach they would have.[1] A reduction in the Canadian tariff on British goods at the expense of the foreign manufacturer would be gladly given, and a preference which would take the form of higher duties against the foreigner would be welcomed with enthusiasm, but the area of the field which Britain did not already possess, in which she could compete, or which Canadian manufacturers did not desire to occupy, was a narrow one indeed.

The farmer was largely inarticulate ; he could not doubt the benefit of a protected British market, provided the British farmer did not take a leaf out of the Canadian manufacturers' book, and provided bargaining with foreign nations did not whittle down his preference, but his organs and organizations for the most part gave faint support or hearty opposition. Among the general public, sympathies were in the long run largely divided on party lines, Canadian conservatives siding with British conservatives, liberals with liberals : something of real harmony of policy on imperial and tariff issues, more of traditional divisions existing in the days when political privilege was a reality and democratic control of government

[1] R. S. Gourlay, President, Canadian Manufacturers' Association, at annual meeting, 1912: 'During our conferences with the British manufacturers they asked us if we would favour an increase in the British preference on articles not made in Canada. Our reply was that . . . we were not in sympathy with any such increase. . . . We were not prepared to admit that there was any article that could not at some point in Canada, and in time, be successfully manufactured.'—*Industrial Canada*, October 1912, p. 334.

a goal unattained, much of the unconscious reflex influence of the labels worn, brought on this and other issues an alliance often misleading and unfortunate in its results.

The colonial conferences registered and voiced the attitude of the governments of the dominions. In 1894 the assembled delegates had urged inter-colonial reciprocity and, with three dissentients, inter-imperial preference. In 1897 they advocated following Canada's example of unconditional preference. In 1902, meeting when the tax Britain had imposed on wheat to finance the Boer War was still in force, they reiterated their advocacy of unconditional preferences, declared free trade within the Empire impracticable, endorsed the general principle of imperial preferential trade, and urged the expediency of the United Kingdom granting preferential treatment on colonial natural and manufactured products, either by exemption from or reduction of duties then or thereafter imposed. Chamberlain, still colonial secretary, complained that the Canadian preference had proved disappointing ; the Canadian representatives denied the soundness of this judgment, but offered to increase the preference, by further reduction of duties, by increase of duties on foreign goods, and by imposing duties on certain foreign imports then on the free list, conditionally on receiving a preference in return. In 1907 came the climax of the discussion of preference: Alfred Deakin and Dr Jameson eloquently and powerfully attacked free trade, while the new occupants of the British Treasury bench, Herbert Henry Asquith, Winston Churchill and David Lloyd-George, vigorously set forth the opposing faith ; Sir Wilfrid Laurier, with the corn-tax gone and the Canadian manufacturers' hostility to the preference on woollens fresh in mind, took little part. The resolutions of 1902 were reaffirmed, with the United Kingdom dissenting ; a fresh expression of demand for British action, based on the precedent set by preferences granted through the South African Customs Union, in which the United Kingdom participated as guardian of protectorates, found the support of a majority, and a British resolution in favour of fiscal liberty of action to each part of the Empire carried unanimously. In 1911, with Deakin and Jameson gone, and new

issues, domestic and imperial, to distract men's minds, imperial preference was passed by, and resolutions in favour of a royal commission to take stock of the Empire's resources and report on methods for development, consistent with existing fiscal policy, and in favour of securing for the dominions liberty to withdraw from most-favoured-nation treaties, took its place.

The tariff controversy obscured the real progress that was being made in other ways in encouraging inter-imperial trade. The reduction of postal and cable rates, at Canada's instance, was of great service. Increased steamship facilities and the improvement of the St Lawrence route counted in the same direction. The organization in 1908 of an able Trade Commissioner service in Canada, under the control of the Board of Trade of the United Kingdom, did much to keep the British merchant in touch with market needs. Still more fundamentally helpful were the many personal visits of inspection made by leaders of British industry in the later years.

The Canadian offers of tariff preference naturally met with quicker response in protectionist Greater Britain than in free trade Great Britain. Beside the West Indian group first included, India, Ceylon, the Straits Settlements and New South Wales were given the preferential terms of the Canadian tariff in 1898. New Zealand in 1903 granted a preference on a limited list of imports, by raising the duties on foreign goods ; Canada qualified for the lower terms by granting New Zealand corresponding favours. In the same year the South African Customs Union established a British preference averaging three per cent, to which Canada was admitted in 1904. With Australia, the most important section of the Empire not already included, negotiation was more difficult. Protectionist feeling in the Commonwealth triumphed over preference, and in 1905 some friction was caused by higher duties in the interest of Australian manufacturers of agricultural implements. Lack of any continuous interest co-operated to postpone results ; on the coming of the Borden administration to power negotiations were resumed, and the Hon. George E. Foster was appointed commissioner.

Meantime the relations with the West Indies were being drawn closer. The islands had never fully recovered from the blow given to sugar-cane growing by the bounty-favoured competition of the sugar-beet. The abolition of bounties under the Brussels Convention, at the instance of Great Britain, did much to revive their trade, and the Canadian preference resulted in the transfer of the great bulk of Canadian demand from Europe to the West Indies. Yet the planters complained that the Canadian refiners cut the price they paid by nearly the full amount of the duty—a charge retorted by the refiners—and complained more loudly when in 1909 the Hon. W. S. Fielding permitted Canadian refiners to import one-fifth of their consumption from foreign countries at preferential rates ; the preference given Cuba by the United States shut out another market. In 1909 a royal commission, with British, Canadian and West Indian members, was appointed to investigate ways and means of promoting closer trade relations between Canada and the West Indies. It reported a year later, emphasizing the benefit of the preference on sugar to the planters, who were declared to have received one-third to one-half the difference in duties, and recommended an extension of the Canadian preference and reciprocal concessions by the different islands, along with betterment of steamship and cable facilities and greater energy on the part of Canadian exporters. The investigation made evident much hesitancy, especially in Jamaica and Trinidad, to concede Canada special favours, lest this provoke retaliation from the United States.

In April 1912 representatives of Trinidad, Barbados, British Guiana, St Lucia, St Vincent, Antigua, St Kitts, Dominica and Montserrat, came to Ottawa and negotiated an agreement somewhat wider in its terms than that recommended by the commission. Under the agreement, which was to last for ten years and a year after notice, Canada was to grant a twenty per cent preference on sugar and molasses, fresh fruits and vegetables, coffee, rice, rubber, timber, arrowroot, tapioca and vanilla, asphalt, petroleum and other imports from the colonies in question, to impose a new duty on foreign cocoa beans, limes and lime-juice, while continuing

to admit these products free from the colonies included, and to repeal the twenty per cent foreign sugar concession to the refiners. In return she was to receive the same rate of preference on fish, meats, flour, dairy produce, live stock, coal, agricultural implements, machinery, lumber, furniture, pianos, starch, paper, rubber goods and other items. Canada was to grant the same concession for three years to Newfoundland, Bermuda, British Honduras, Grenada and Jamaica, to give them an opportunity to subscribe to the agreement. The measure, made subject to the approval of the legislatures of the various contracting parties, was ratified by Canada at the next session of Parliament, with the proviso that only goods shipped to a Canadian port would receive preferential rates.

United States Relations : the Era of Neighbourliness

Of foreign countries the United States still bulked largest on the Canadian horizon, but a marked change had come about in the official relations of the two nations. The era of petty squabbling gave way to an era of frank and neighbourly discussion of common issues. Further, the pilgrimages from Ottawa to Washington ceased and the pilgrimages from Washington to Ottawa began ; the United States became more eager for closer commercial relations, and Canada more indifferent. The causes of these two broad tendencies, themselves not unconnected, may be briefly summarized.

There were many forces leading the United States to change its code of national manners. After the Spanish-American War, which merely brought a growing tendency to a head, the United States awoke to the realization of two hard facts : that in acquiring the Philippines and Porto Rico, or being acquired by them, she had given hostages to fortune, and that in the stress of conflict the one sure friend had been Great Britain. Undoubtedly this realization did much to bring about a more friendly and more responsible tone in American diplomacy, though some survivals of the days of spread-eagled isolation still remained audible. The growth of plutocratic power, the sudden realization that all the ills

of feudal Europe had taken root in American soil, the growing conviction that America was no longer the land of opportunity, the cumulative distrust of the once vaunted constitution, did much to concentrate attention on domestic evils, to lessen the feeling of superiority over other lands, and to awaken friendly interest in countries facing the same problems. Canada's resources were better realized, and her friendship found more worth the cultivating. And no one who estimates rightly the power of the press will underrate the incidental influence of the Canadian immigration campaign in the United States, the hospitality afforded to editorial associations, the advertising placed in thousands of newspapers, and the desire for cheaper pulp and paper. In Canada, meantime, an equally notable improvement had developed. Prosperity was mending the manners of Canada as effectually as adversity was tempering the tone of the United States. Memory of injuries, sensitiveness to slights, vary inversely with the size and prosperity of the nations concerned: Canada's development now kept her too busy to rake up old sores, and too successful to worry about a few quintals of fish or the duty on peach baskets. She, too, came to develop an international sense, and to realize, except in some quarters where the battle of Lundy's Lane was still being fought, the importance of Anglo-American friendship for the peace of the world.

The United States grew more favourable to proposals for freer trade. Many American manufacturers had reached the export stage where foreign markets, cheap food and cheap raw materials were more necessary than a protected home market. Man for man, no market in the world was so profitable to United States producers as Canada's, and only to Britain and to Germany did they send a larger total. They, and more disinterested advocates of conservation, realized that the free land of the republic was gone, that its agricultural production would not increase on the old lines of extensive cultivation, and that the timber resources were, if not exhausted, nearly monopolized, while across the border vast undeveloped farm and mine and forest areas beckoned. Meantime, protection had ceased to grip the popular mind

as of old. In the revolt against corruption and privilege which swept over the country and converted a millionaire-worshipping to a millionaire-suspecting people, the tariff, as one of the chief instruments of exploitation, suffered beyond the hope of rehabilitation. The consumer blamed the tariff on foodstuffs for the rise in the cost of living, unjustly in the main, though there may have been poetic justice in the tariff which once was credited with all the prosperity of the nation now being damned for sins not its own. And the consumer was now a power in the land, what with the growing urban dominance, and what with the change from the days when the producer meant the small individual worker, who was at the same time the ultimate consumer, to the days when the producer meant some vast corporation, pilloried by newspaper cartoonists as a Stone Age giant or an ogre in dollar-checked garments, with interests diverse, or popularly reputed diverse, from those of the ultimate consumer aforesaid ; thus, the United States being a democracy, the centre of political gravity shifted slowly from producers' interests and producers' tariffs to consumers' interests and consumers' tariffs. These forces were by no means unopposed. Against them were arrayed the hard-dying doctrines of protectionist orthodoxy, the politicians who had always found protection their chief stock-in-trade, the manufacturers who still found in the United States the best preserve they could hope for, and the farmers who stoutly resisted the attempt to do away with the tariff on foodstuffs, now that, with the United States on the way to becoming an importing nation, it might at last prove of some real value to them.

In Canada opposition or indifference to closer trade relations was undoubtedly growing. Resentment of a half-century's rebuffs lingered. Other foreign markets at last were opened and developed to real importance. The actual growth of the exports to free trade Britain, and the prophesied greater growth to a protectionist and preference-granting Britain, diverted attention. More important still, Canada had discovered herself, had come to a new confidence in her unaided strength, and to a new determination to build up, at whatever cost, a strong and united nation in the

northern half of the continent. From despondency and pessimism the pendulum had swung to the other extreme of optimism and self-assertion. Prosperity produced in Canada, as earlier in the United States, a feeling of self-sufficiency. The movement for the conservation of natural resources created a more or less logical sentiment against the export of natural products. Protectionist sentiment widely prevailed; eastern manufacturers were thriving, organized and powerful; the general public took much the same attitude as that which prevailed in the United States a generation earlier; the country was in that early stage of exploitation where a capitalist is a personage to be prayed for and respectfully heeded, rather than suspected and denounced. The growing weight of the city told against closer relations in Canada, where closer relations were read to mean freer admission of such goods as the home city produced, just as it told for closer relations in the United States, where closer relations were read to mean freer admission of such goods as the home city consumed. These forces were not in sole possession of the field. The unexpected vitality of free trade principles in Britain and the progress of the lower tariff sentiment in the United States were reflected in Canadian opinion. The demand of the prairie West for open markets both for what was bought and what was sold became more insistent and better organized. Rural depopulation in the East gave a text for anti-tariff agitation. Yet, on the whole, the drift was against any change in the commercial relations between Canada and her neighbour.

Fisheries, Power and Transportation Solutions

In the treatment of the specific issues which pressed for settlement, old and new, the spirit of amity found practical manifestation, especially in the later years. Even the dissatisfaction in Canada with the personnel of the commission chosen to determine the Alaska boundary dispute, and with the decision reached by the majority of the members, failed to create a revival of the old attitude toward the United States, since Lord Alverstone served as lightning-rod. The

features of the period were the extent to which negotiations were carried on informally and directly, the assiduous zeal of James Bryce, the first British ambassador at Washington to visit Canada during his term of office, and the free employment of international joint boards to regulate common matters.

The fisheries continued to occupy the diplomat. On the Atlantic the long-standing question as to the meaning and implications of the convention of 1818 were determined, mainly in favour of the British contention, by a verdict of the Hague Tribunal in 1910. On the Pacific, alleged American poaching for halibut in Hecate Strait and the use of trap-nets by the Puget Sound canners to intercept the salmon which pass through the waters of both countries on their way to spawn in their native river, the Fraser, threatening extinction and giving the Washington canner a temporary advantage in the cheapness of his fish, caused frequent friction. In the Great Lakes, the depletion caused by American fish companies and poachers operating in Canadian waters compelled attention. A treaty was drawn up in 1908, to provide uniform and effective means for protecting and propagating food fishes in boundary waters, but the opposition of private United States interests prevented it being carried into full effect. The Pacific fur seal controversy was also settled in 1911 by an international agreement between Great Brtiain, the United States, Japan and Russia. Pelagic sealing was prohibited for fifteen years, but Canada was apportioned a share of the proceeds from the seals killed on land by the powers possessing rookeries, fifteen per cent of the United States and Russian, and ten per cent of the Japanese gross takings.

Meantime, the old problem of navigation rights, and the newer difficulty as to the diversion or obstruction of boundary waters for power development or sanitary purposes, were being grappled with. In 1905, in pursuance of a suggestion made by the United States three years earlier, a temporary International Waterways Commission began its sittings, and in January 1909 a Boundary Waters Treaty was negotiated, and ratified a year later, making provision for a permanent

tribunal. The International Joint Commission, consisting of three members from each country, was given power to control diversions or obstructions of international waters, on the principle that domestic and sanitary use, navigation needs, and power and irrigation requirements were to be considered in the order given. The most striking feature of the treaty was the provision that any matter at issue between the two countries, aside from boundary waters complications, might be referred to the Joint Commission for decision, with the consent of the United States Senate and the Dominion Cabinet—a notable advance alike in international arbitration and in the diplomatic status of the Canadian administration. The navigation on equal terms of all boundary waters, including Lake Michigan, was provided, and a division made of the power to be developed at Niagara, and on the Milk and St Mary's Rivers. A tentative endeavour to settle the question of international traffic rates in the same manner showed how different was the situation since the canal and bonding squabbles of the eighties. In 1910, on the initiative of the United States, Chairman Mabee of the Dominion Railway Commission, and Chairman Knapp, of the United States Inter-State Commerce Commission, met and drew up a report in favour of joint action to control international carriers ; no immediate action was taken, however.

Canada and the Payne-Aldrich Tariff

The central question of official trade relations did not again take concrete form for some years. The Joint High Commission never reconvened after its split on the Alaska boundary rock in 1899. The change of opinion in the United States as to the advantages of freer trade, which has been referred to, found expression in many resolutions of boards of trade, in discussions before national reciprocity conventions, and latterly in the platforms of Massachusetts state politicians ; the headquarters of the agitation were in the urban centres of New England and the North-West, especially Boston, Detroit, Chicago and St Paul. It was not, however, until the Payne-Aldrich revision of the United States tariff

in 1909 that the issue was presented so broadly as to compel the serious attention of both countries concerned.

The striking feature of the new tariff of the United States from the international point of view was the adoption for the first time, if we except the limited retaliation provisions of the tariff of 1890, of the maximum and minimum principle. The expedient, as it finally took shape, followed the Norwegian model of minimum rates, intended to be the general and permanent duties, with a maximum schedule serving temporarily as a club to compel concessions. The maximum rates were to be higher than the minimum by a duty of twenty-five per cent, not of the minimum rates, but of the value of the commodity itself, and were to be levied on free as well as on dutiable goods. The president was directed to enforce these higher duties not later than April 1910, against all countries exercising undue discrimination against the United States. Armed with this redoubtable weapon, the State department immediately began to negotiate with all countries in which it did not already secure the lowest terms conceded to any other state. One by one the protectionist nations of the world, with the best grace possible, consented to grant the terms demanded. France and Germany were most obdurate, but at last accepted. Only Canada remained to deal with. It was tacitly admitted by the United States, and the admission was important, that the preference granted the United Kingdom and certain British colonies did not constitute 'undue discrimination.' It was urged, however, that the concessions made to France by the treaty ratified in 1910, and since extended to other countries, did give ground for the application of the maximum tariff, unless equivalent special concessions were granted the United States.

In Canada this demand seemed grossly unfair. That the United States, with a tariff already much higher than that of Canada, should threaten a prohibitive increase unless granted gratuitous favours, appeared to partake of the code of the highwayman ; a sound criticism, it may be, but not to the point in the discussion of modern protectionist warfare, where ethics and etiquette have never been conspicuous.

More pertinent was the criticism that the demand was inconsistent with the century-old attitude of the United States in the interpretation of reciprocal favours. In Europe, especially since 1850, most-favoured-nation treaties were assumed to warrant each country receiving from the other all favours granted a third power, without any specific return at the moment, payment coming indirectly later as a by-product of treaties between other powers in the most-favoured-nation circle. The United States, on the contrary, from its first commercial treaty with France in 1778, took the stand that each specific bargain should show an even balance, that a most-favoured nation could claim the favours granted a third only by making the concessions which that third power had made. Applying this traditional principle, the United States could not ask that Canada should give her gratuitously favours which France had purchased by special concessions. But in adopting the maximum and minimum device the United States had unwittingly abandoned that traditional principle ; instead of demanding equality between the concessions given by each of two other powers seeking the same favour, it now demanded equality between the treatment accorded itself and the treatment accorded any third power. The whole basis of United States commercial diplomacy had shifted. The demand made upon Canada was consistent with the new, if not with the old, basis.

Taking the initiative in the negotiations, the president, after sounding the British government as to the acceptability of the course, sent delegates to Ottawa early in March, to endeavour to secure the concessions necessary to avert the imposition of the maximum tariff. The Canadian government declined to grant the demand for reductions equivalent to those given to France, and the negotiations were suspended. The end of the last month available for agreement was approaching and both countries became alarmed at the prospect of a serious tariff war. Canada was fully aware of the business confusion and political bitterness such a contest would involve, and ready to do her share to avert it, but halted at making concessions which seemed unjustifiable. In the United States, business interests and general public

opinion were unanimously against such a logical or illogical outcome of the Senate's big-stick policy. On March 22 a democratic candidate for Congress in Massachusetts captured an overwhelmingly republican seat on a platform of reciprocity with Canada. The intervention of an amateur diplomat in the disguise of a Canadian newspaper editor solved the difficulty : President Taft resolved to resume negotiations for the settlement of the present problem, and at the same time to suggest a wider bargain. To the president the plan of a comprehensive settlement with Canada was not only in harmony with the changed convictions of the nation on the subject and his own ideas of international peace, but it opportunely presented a means of conciliating the lower tariff sentiment which he had estranged by his qualified defence of the Payne-Aldrich revision. A conference was arranged at Albany between President Taft and the Hon. W. S. Fielding, and later the details were discussed in a meeting at Washington. An agreement was reached, and on March 30, the last day of grace but one, a proclamation was issued giving Canada the minimum rates of the United States tariff.

Each country had receded to some extent from its original position. Canada agreed to give the United States the rates of its intermediate tariff on a few articles, aggregating in value about three per cent of the imports of Canada from the republic—china and porcelain table ware, window glass, photographs, watch movements, certain leather schedules, feathers, nuts, prunes and unenumerated goods, of which the chief were cotton-seed oil and sausage casings. The United States, in its turn, abandoned the demand for concessions equal to those given to France. The reductions were of minor importance in themselves—although tanners saw the influence of the beef trust in the leather concessions —but they sufficed to avert a tariff war otherwise inevitable by giving the president a reasonable ground for declaring that no undue discrimination existed. Meantime the Canadian government hastened to safeguard its own position by simultaneously granting the same reductions to all other countries as well as to the United States. The upshot of the matter

was, therefore, that, while Canada had gone through the form of giving special concessions to her neighbour, as a matter of fact the United States remained in every schedule subject to the general tariff of the Dominion, and enjoyed neither the same special concessions as France nor any other special concessions. In no other dual-tariff country with which the United States had negotiated was this the case. It was a fitting ending to the episode, a phantom concession to heal a phantom grievance. The success was due, of course, not merely to Canadian diplomatic skill, but to the good sense and friendly sentiment of the people and president of the United States.

The Revival and Defeat of Reciprocity

In a message to the Canadian people, issued through Dr J. A. Macdonald in the course of the maximum tariff negotiations, President Taft declared :

> It is my deliberate purpose to promote in such ways as are open to me better trade relations between the United States and Canada than at present exist. I am profoundly convinced that these two countries, touching each other for more than three thousand miles, have common interests in trade and require special arrangements in legislation and administration, which are not involved in the relations of the United States with countries beyond the seas.

In accordance with this policy negotiations were resumed at Ottawa in November, and concluded in Washington, in January 1911, by the drawing up of draft proposals of reciprocal trade. The United States had made an offer of complete free trade, but this Canada had declined ; the agreement reached followed in its main lines the 1854 treaty, putting on the free list grain, fruits, vegetables, dairy and most agricultural products, live stock, fish and fish-oils, hewn timber and sawn boards, crude gypsum, mica, feldspar, asbestos, talc and salt. The chief variations from the earlier agreement were that meats, flour, coal and various timber products were accorded reduced duties instead of being admitted

entirely free, and that a limited number of manufactured articles were included : barbed fencing-wire, typesetting machines, brass bars, rods and plates, wire rods, galvanized iron and steel plates, coke and a few other articles, free ; agricultural machinery, printing-ink, plumbing supplies, clocks and watches and automobiles, admitted at reduced rates into both countries ; Canadian aluminium, laths, shingles, sawn and planed lumber, iron ore, and coal slack, at reduced rates into the United States ; and United States cement, condensed milk, canned fruit, fruit trees, unsweetened biscuits, peanuts and coal at reduced rates into Canada. Wood pulp and newsprint paper valued at not more than four cents a pound were included in the free list, with the proviso that only paper and pulp made from pulpwood on which no restriction in the form of prohibition or taxation of exports existed should be admitted free into the United States, and that no United States pulp or paper should enter Canada free until pulp and paper from all parts of Canada were admitted free into the United States. All reductions which Canada gave the United States were, by treaty, to be extended to the most-favoured nations, and, by policy, to all parts of the British Empire.

The administrations of the two countries had reached agreement. There remained the more difficult problem of securing the consent of the respective legislatures. Traditionally this had proved a more thorny task in the case of Congress than of parliament, but on this occasion the rôles were reversed. In Congress President Taft was met with the violent opposition of a majority of his own party, some reflecting the almost unanimous hostility of the farmers of the United States, and of the lumber, paper and fisheries interests, others, of the progressive faction, seeking to discredit their nominal chief for political purposes. He secured support among the thick-and-thin administration republicans, and among the democrats, who found the policy in harmony with their own programme of tariff reduction, and incidentally useful in furthering a split in the ranks of their opponents. The bill to carry out the agreement passed the House of Representatives in February, but determined opposition by a minority

in the Senate prevented action before adjournment on March 4. President Taft, now committed to the success of the one distinctive measure of his administration, at once summoned a special session of Congress ; the force of argument, party expediency, and the temperature of Washington in mid-summer finally melted the Senate's obduracy, and the bill was passed on July 22, to go into effect when a corresponding measure had passed the Canadian parliament. Meantime the agreement had been laid before the House at Ottawa in January. It was accepted by the government ranks, with hesitation in some quarters, but in the end with the implicit obedience bred of our party system. The attitude of the opposition was at first uncertain, but, as the hostile campaign developed outside the walls of parliament, it became emphatically antagonistic. Parliament adjourned in June to permit the premier to attend the Imperial Conference in London ; on his return it was reconvened, but in a house without a closure it was impossible to force a vote, and parliament was dissolved a week after Congress had taken final action, with new elections set for September 21.

After cabinets and parliaments came the electorate. The incidents of the campaign, the consistency of politicians, the party fortunes involved, are outside the limits of the present record. The considerations pressed home in defence of the agreement or in attack upon it are more germane, but it is as yet too early to attempt to divine what the impartial judgment of history will be upon the contest ; one can only record a provisional summary of the argument, throwing as it does light on the condition of Canadian industry and the forces at work.

The economic aspect of the agreement gave wide opportunity for honest difference, whether considered from the standpoint of the producer, the consumer, or the general public. The opponents of the bargain urged that under it the Canadian farmer would gain no new markets of importance, since the United States was a competitive, not a complementary market, exporting many times more agricultural produce than Canada ; that he would, on the other hand, be exposed in his own market to the competition not only of

United States farmers, especially producers of early fruit and vegetables, eggs and dairy products, but of the British colonies and most-favoured nations ; and that he would lose the opportunity of the protected British market, since imperial preference was incompatible with continental reciprocity. Its defenders dwelt upon the fact that the United States was fast ceasing to be an exporter of agricultural products, and in such instances as hard wheat had already reached the importing stage ; they endeavoured to secure the revision of the most-favoured-nation treaties, and either denied that imperial preference was incompatible or declared that its coming was in any case most unlikely. There is no question that there was not the difference between the rates of increase of demand of the two nations which had existed in the earlier days of reciprocity discussion. Similar forces had evened up market prices in a striking degree. Yet a consideration of prices ruling in parallel markets for grain, live stock, dairy products and root crops, fish and lumber and the mineral products concerned, shows that normally there was still a balance against the Canadian producer, except in mixed-farming products in the West ; the North-West farmers, the strongest supporters of the agreement, would have gained in the higher prices both for the high grades of wheat required for blending and for the grades below European export quality, as well as in barley and flax and in cattle shipments. The Nova Scotia coal-owners argued with much force that local smoke ordinances, community of interests between United States railways and coal-mine owners, and the expense of erecting terminals without any guarantee of permanence in the fiscal arrangements, would deprive the Eastern United States market of much of its seeming promise ; on the Pacific coast, however, the Canadian coal-mines had it all their own way. For the rest, the economic advantages of the agreement would have been, not of the obvious character of trade bargains between tropical and temperate peoples, but the gains of intra-provincial and intra-state trade, of country and city trade, the gains of greater specialization, complementary seasons, the cancelling of cross-hauls and the utilization of nearer resources ; in brief, it would at worst have

meant simply the expansion of that most cherished ideal of the protectionist, the home market. The argument as to competition from the foreign nations and British colonies concerned had force, and it is not likely that in any appreciable time denunciation of the most-favoured-nation treaties could have been secured, even if, as was doubtful, they were proved on a long view detrimental. Whether or not the agreement would have proved a barrier to imperial preference, in the event of Tariff Reform victory in Britain, depended upon the particular conception of imperial preference adopted, whether it was contemplated that it was to be exclusive, neither Britain nor Canada negotiating with any foreign power, or whether each state of the Empire, Canada as well as the United Kingdom, was to be at liberty to reciprocate or retaliate as its interests led.

The manufacturer was not directly involved to any noteworthy degree, except so far as millers, packers, canners and brewers might have had to pay higher prices for their raw materials. The ' thin end of the wedge ' argument, however, was urged with force ; it was held, assuming that the flow of farm products would be chiefly northward, that the tacit agreement between the manufacturer and farmer would be broken, and that the farmer, deprived of protection on what he sold, would demand that the duty be taken off the products which he bought ; further, assuming now that the flow would be southward, the United States would threaten to deprive the Canadian farmer of this outlet unless he used his power to open Canadian markets to their manufacturers in return. The advocates of reciprocity countered by declaring that rejection of the legitimate demand of the farmers for wider markets was more likely than anything else to create an uprising against the tariff on manufactures. The industrial interests and their financial allies, however, may be presumed to have known their business best, and in overwhelming majority they decided against the pact and against the truce with the government which had lasted for sixteen years.

The consumer received his meed of attention. The anti-reciprocity forces assured him that if the increased export

of farm products prophesied by their opponents really took place, a further increase in the cost of living was inevitable. On the other hand it was urged that, while the prices of raw products would be increased to the producer, there would be no increase, there would even be a decrease, in the prices of the finished products used by the consumer, thanks to the reduction of the tariff on these finished commodities ; the manufacturer's or middleman's profit would be cut into from both sides. But the argument was a subtle and difficult one to handle, and both opponents and advocates found much difficulty in preserving consistency and effectiveness in addressing city and country audiences.

Conservation, now become as blessed a word as Mesopotamia, played its part. The export of natural products, once clamoured for as the most desirable outcome of reciprocity, was now attacked as its most injurious aspect. The agreement was denounced as a plan of United States interests to preserve their own dwindling natural resources at the expense of Canada's. Forest and farm, fisheries and mine would alike be depleted ; pulpwood and iron ore would be shipped out and paper and manufactured iron shipped back ; wheat-mining would be encouraged, and mixed farming in the West postponed another generation. The defenders of freer trade pointed out that precisely the same charge might be brought against the imperial preference proposals of Chamberlain, which offered a preference mainly on natural products, and explicitly looked to the stereotyping of Canada's relatively undeveloped industrial position. The agreement provided increased facilities for the export of live stock as well as of foodstuffs. From the standpoint of conservation, though not of protection, it made little difference whether spruce trees, cut down to feed the hungry maw of the New York press, were ground into pulp and pressed into paper on the north or on the south side of the line. In any event the United States could of its own motion lower its tariff bars, and, short of an export duty on all natural products, the drain would then continue.

It was, however, on the political dangers of closer trade relations that the popular campaign against reciprocity was

mainly based. As in 1891, Canadian nationality and British connection were declared to be at stake. The intentions of the United States advocates of reciprocity, the effect of its working upon Canadian interests and Canadian sentiments, alike made for continentalism. There was no question, it was urged, as to the desire of the majority of the people of the United States to see the Stars and Stripes waving from Panama to the Pole ; the long record of territorial expansion, the recent imperialist development, the utterances of prominent public men, from the president's 'parting of the ways' message to the House speaker's 'We are preparing to annex Canada,' proved that whatever diplomatic denials might be made in official quarters the United States looked upon reciprocity as the half-way house to annexation. It might be that there were in Canada fewer avowed sympathizers with political union than in 1891, but, so far as Canada was concerned, it was not the intentions of the advocates of reciprocity but the effect of its adoption that gave ground for fear. Where the treasure was, there would the heart be also. Reciprocity would mean that St Paul and Chicago, Buffalo and Boston and New York, would be the centres in which Canadian sellers and Canadian buyers would be interested, that countless strands of business interest and social intercourse would bind Canadians to these markets, that the east and west traffic built up at such heroic sacrifice would be cut in half and the north and south lines developed, and that Canadian producers, after adjusting their whole efforts to the new markets, might be faced by an ultimatum that this market would be shut off and their business ruined unless they consented to seek political union. As to imperial connection, it was obvious that whatever happened to a separate Canadian nationality, all dreams of a stronger imperial sentiment and a closer union with the mother country were doomed to come to nothing.

The defenders of reciprocity appealed to confidence rather than to fear. They denied that there was any similarity between the conditions of 1891 and 1911. In 1891 any measure of reciprocity that could have been secured from the United States would have involved discrimination against

the United Kingdom ; in 1911 reciprocity not only involved no discrimination against Britain, but was accompanied by a greater preference, and a preference recognized by the United States. In 1891 it was difficult to see how unrestricted reciprocity could be brought about with a common tariff ; in 1911 both nations were explicitly free to alter their tariffs as they pleased. In 1891 the West was undeveloped, industry stagnant, the population stationary, national spirit, or rather colonial spirit, apologetic and pessimistic ; in 1911 the West was focusing the world's attention, industry expanding, population advancing and national spirit growing every year more confident, assertive, sturdily self-reliant. There was not the faintest possibility of Canada in the twentieth century consenting to throw away her national ideals and her national destiny. As for the annexation sentiment of the United States, unquestionably it was much weaker than at any previous epoch, thanks to growing domestic difficulties, and growing appreciation of Canadian hostility to the idea ; the contemporary utterances quoted were largely twisted from their context or were uttered by protectionist opponents of the agreement for Canadian consumption. In any event, it was not what the United States thought, but what Canada thought or would think, that mattered. If trade intercourse bred annexation sentiment, how explain the fact that the years since 1891, when Canadian imports from United States had been doubling each decade, were precisely the years in which the tide of national and imperial patriotism had been at the flood ? If imports were loyal, why were exports disloyal ? Admission to the United States market in 1854-66 had killed, not fostered, annexation sentiment ; exclusion from it since by unfriendly tariffs had not developed that sentiment, but exclusion of the West from that market in behalf of Canadian manufacturers and British Tariff Reformers might well breed it. Canadian railways already had thousands of miles of road in the United States, Canadian bankers kept their reserves in Wall Street, Canadian merger promoters called in United States capital and directors without question. The Canadian farmer who sold a bushel of good potatoes in the United States, no

more packed his loyalty with it than did Kipling selling a volume of verse in the same market for the same money.

So the controversy waged until the electorate gave its verdict in September. The voice of the people in a general election is a Delphic oracle, often difficult of interpretation ; the confusion of issues, the difficulty of disentangling votes for a party from votes for an issue, the disproportion between electoral votes and parliamentary seats, obvious both in 1908 and in 1911, cloud the result. Yet the overthrow of the government was too emphatic to permit room for doubt that the majority of the people of Canada, especially of the industrial districts, would have none of the Taft-Fielding agreement. The ashes of controversy still are hot ; to some the verdict appears a sturdy assertion of self-reliant national spirit and of imperial vision, of readiness to set ideals above immediate pocket gains, of determination to develop Canada's resources for Canada's sons ; to others, a triumph of craven fear over a solid patriotism that scorned to doubt its own strength, a triumph of audacious appeal to prejudice by organized interests. Perhaps the determining factor with the man in the street was the conviction that at last he was sufficiently prosperous to be able to sacrifice a further gain for himself—or for his neighbour—in order to show his resentment of long years of United States hostility and condescension. Doubtless each explanation had its measure of truth ; what the proportions were may be left for the partisans of the present to discuss, and for the historians of the future, peering through the cold mists of a half-forgotten past, to endeavour to determine. Thus another long chapter in Canada's commercial history was brought to its dramatic conclusion.

Commercial Relations with other Lands

The Control of Negotiations.—With foreign countries other than her nearest neighbour, Canada's official trade relations became more important, though not in all cases more friendly. The development of autonomy in the control of foreign trade relations continued, until at the close of this period inde-

pendence in all but name was secured. It has been seen that the abandonment by the United Kingdom of the power of shaping actively the commercial policy of the greater colonies had come first in this development, and that by 1896 the only vestiges remaining were the most-favoured-nation treaties concluded by the United Kingdom in early years, and still binding the dominions. In 1897 the granting of the Canadian preference led the United Kingdom to denounce the two treaties which barred inter-imperial preference in tariffs. In 1899, to prevent future difficulties, it was stipulated that any colony adhering to a treaty negotiated thereafter between the United Kingdom and a foreign power might withdraw on giving a year's notice, without abrogating the treaty so far as other states of the Empire were concerned ; clauses to this general effect were included in new treaties with Servia, Roumania, Bulgaria, Uruguay and Nicaragua, and inserted in older conventions with Egypt, Greece, Paraguay and Liberia.

As for the remaining most-favoured-nation treaties inherited from the old colonial régime, it appeared for a time that no concrete difficulty would arise to bring up the question of a dominion's power to withdraw or alter the terms. In 1906, however, when the Australian government introduced a bill offering a five per cent preference on British goods, provided they were imported in British or Commonwealth ships manned entirely by white labour, the British government pointed out that this provision conflicted with treaties, notably those with Italy and Austria-Hungary, which guaranteed to their shipping national treatment in the dominions, and the bill was reserved. Thus the situation which had earlier arisen regarding tariff preference now developed in the case of shipping preference. British shipowners were opposed to accepting a preference which would expose them to retaliation in respect to more important trade, the more so because the prohibition of Lascar or other coloured crews tended to confine what benefits there were to Commonwealth rather than United Kingdom shipping. In Canada the navigation difficulty had not yet been felt, but the Canadian government, in 1911, was experiencing the electoral incon-

venience of the same treaties, on account of the necessity of extending to the most-favoured nations the concessions granted to the United States in the pending reciprocity agreement. Accordingly, at the Imperial Conference of 1911 Sir Wilfrid Laurier backed the request of the Australian delegates for modification of the treaties, a request which Australia had made a year before, and which had led to preliminary negotiations with Italy and Austria. The members of the conference, with the full endorsement of the British foreign secretary, unanimously agreed that, in view of the principle having been conceded in the case of new treaties, negotiations should be opened to secure liberty for any dominion so desiring to withdraw from existing treaties, without impairing their force in respect to the rest of the Empire. Negotiations were opened at once by the foreign secretary, but, with the exception of Sweden, none of the countries concerned intimated immediate willingness to consent to partial abrogation. In view of the compensating advantages which the most-favoured-nation treaties conferred on the expanding trade of the dominions, and the smallness of the gain for which the United Kingdom was asked to run the risk of unsettling the whole treaty basis of its foreign trade, the issue did not arouse continued interest in Canada.

On the positive side the conduct and control of commercial negotiations were now entrusted to Canada to the fullest degree. In the treaty with France in 1907 the Canadian representatives conducted the entire negotiations, though the British ambassador added his signature to theirs as the third plenipotentiary. Sir Edward Grey declared it unnecessary to adhere to the Ripon dispatch of 1895, and the Right Hon. A. J. Balfour commented approvingly on the fact that the government of the United Kingdom had not been consulted and had not thought it advisable to offer any advice on the policy to be pursued. In the constant dealings with the United States, direct and less formal intercourse became the rule ; the earlier demand for a separate Canadian representative at Washington died away, as the practice of entrusting both negotiations and the operation of permanent

commissions to Canadians grew, and as James Bryce, the British ambassador at Washington, proved that he was also the Canadian ambassador. The most notable aspect of this tendency was the quasi-diplomatic status assigned to the consuls-general of foreign powers in Canada, and the increasing use of this channel of communication, notably in the negotiations leading to the withdrawal of the German surtax and the extension of the intermediate tariff in 1910. In the agreement with Italy the parties were designated as 'the Royal Consul of Italy for Canada, representing the government of the Kingdom of Italy, and the minister of Finance of Canada, representing His Excellency the Governor-General acting in conjunction with the King's Privy Council for Canada.' Abroad, a Canadian consular service took shape by the appointment of additional trade commissioners and commercial agents from time to time. By 1912 Canada had representatives in the United Kingdom, Australia, New Zealand, South Africa, the West Indies, France, Germany, Holland, Norway, Cuba, Argentina, China and Japan. In that year formal arrangements were made with the British government by George E. Foster, the minister of Trade and Commerce, for extension of the service, and for the continued good offices meantime of the United Kingdom's consular staff.

Germany and Tariff Wars.—The first important tests of the larger powers arose out of the denunciation of the Belgian and German treaties in 1897. Belgium, which had a low single-scheduled tariff, made no attempt to retaliate, but Germany, richer in the possession of a dual tariff, in 1899 withdrew from Canada the benefits of the minimum or conventional duties, and imposed the general rates. Canada maintained that this retaliation was unjustifiable, since Germany, though subject to no discrimination as compared with foreign countries, could not expect to be treated on the same basis as other members of a common empire. But Germany, which might be excused for not understanding the anomalous relations of an empire whose components claimed unity one day and independence the next, declined to heed the Dominion's request for a restoration of the lower rates. Accordingly, in 1903, Canada retaliated in kind;

power was taken to impose a surtax of one-third on the goods of any foreign country which treated imports from Canada less favourably than imports from other states. As a matter of fact, Italy, which equally did not grant Canada her minimum rates, was as deserving of retaliation as Germany, but it was only against the Zollverein that the surtax was enforced.

For seven years the war of tariffs lasted, and trade was seriously hampered. German exports to Canada, which had averaged ten millions a year in the three years before the surtax was imposed, fell to five and a half millions in the last three years of its operation, in spite of the fact that general imports increased two-thirds in this period, and that previously German exports had been rapidly expanding ; in a few commodities, however, such as cotton, musical instruments and paper, the exports grew in spite of the heavy duty. Canadian exports of home produce to Germany, on the other hand, smaller than the imports to begin with, increased about fifty per cent in the corresponding period, though the increase was mainly in goods on the free list, or in which no difference existed between the general and the conventional tariff. Finally, when the extension of the intermediate tariff to other European powers threatened to increase still further the disadvantage to her trade, Germany took the initiative in resuming friendlier relations, and in February 1910 an agreement was entered into by the minister of Finance and the German consul-general. By this agreement, which was provisional pending negotiation of a broader one, Canada withdrew the surtax but did not extend any of the rates of her intermediate tariff ; Germany, however, granted her minimum rates on grain, fruit, live stock, meats, timber, pulp, paper, canned foods, hides, leather, and boots and shoes, the most important items in Canada's dutiable exports thither.

France and Treaty Extensions.—Experience was bringing conviction of the desirability of a more flexible tariff arrangement. With dual schedules, or, counting the British preference, a triple array, it would be feasible to discriminate between friendly and unfriendly states, without involving the use of the unwieldy weapon of the surtax. Accordingly, in

1907 an intermediate tariff was authorized, containing rates slightly below the general tariff ; the governor in council was empowered to extend these rates to any British or foreign country, in consideration of satisfactory benefits. Furnished with this device for give and take, the Canadian government turned first to France, traditionally closest to her of European powers. The Hon. W. S. Fielding and the Hon. L. P. Brodeur succeeded in 1907 in negotiating a comprehensive treaty, but it hung fire for three years. The hitch in the negotiations came from unexpected opposition in French commercial circles : it was urged that the advantages were illusory, as they must be shared with other nations, especially with Switzerland, whose right to most-favoured-nation treatment had apparently eluded the negotiators until discovered by M. Sayous ; Canada's competition, on the other hand, would be dangerous, especially if the announced intention of several United States trusts to establish branch factories in Canada were carried out ; and the United States themselves would demand the terms conceded to the Dominion. In Canada there was little opposition, French imports not competing with the home producers, except Ontario's vine-growers, to the same extent as would German or United States products ; it was, however, prophesied, and rightly, that the making of the treaty would expose Canada to the maximum rates of the pending Payne-Aldrich tariff. Finally, some slight modifications were made, and the treaty was ratified by the parliaments of both countries in 1910. The treaty extended materially the range of products admitted at lower rates. Live stock, fresh and canned meats, dairy products, sea-fish as well as fresh-water fish, lumber and pulp, agricultural implements and other iron and steel manufactures, furniture, boots and shoes, were among the more important Canadian commodities given French minimum tariff rates ; French wines, olive oil, embroideries, lace, velvet, silks, ribbons, were allowed Canadian intermediate tariff rates, or special rates between the intermediate tariff and the British preferential tariff, and even, as in the case of drugs and some wines, duties below the existing preferential level, though simultaneously the same reduced rates were made part of the preferential

tariff. The most-favoured-nation obligation in each case was confined to the articles specified in the treaty.

The ice thus broken, agreements were rapidly concluded with other European powers. Austria-Hungary, Denmark, Norway, Sweden, Russia, Spain and Switzerland were already included in the most-favoured-nation circle. Belgium and the Netherlands, however, both low-tariff countries, granted Canadian goods terms more favourable than any other European powers, and accordingly in June 1910 the benefit of the intermediate rates, on the articles specified in the French treaty, was extended to them ; the concessions granted to France below the intermediate rates could not be extended by mere order-in-council. At the same time a provisional agreement was made with Italy, providing for the admission of the specified products of each country into the other at minimum and intermediate tariff rates respectively. In all three cases, to be entitled to the lower duties, goods must be shipped direct from the country of origin, a British country, or other state sharing in the intermediate tariff, into a seaport or river port of Canada. In 1907 Canada adhered to the British treaty with Japan, guaranteeing most-favoured-nation treatment, a privilege declined a decade earlier ; in 1911 a two-year compact was signed. By these agreements Canada had now replaced its simple single-schedule tariff of the nineties by a most elaborate structure : at the top was the surtax, held as last resort, then the general tariff, next the intermediate tariff, then the special concessions granted France below these rates and automatically extended to certain other countries, and finally the British preferential rates. If tariff negotiations could open doors to trade, Canadian administrators could not complain of lack of instruments.

The Expansion of Foreign Trade

Abounding prosperity and higher prices were reflected in the rapidly mounting figures of foreign trade. For twenty years, what with slow internal development, and what with world-wide falling prices, there had been little advance ; the total value of imports and exports, which had reached two

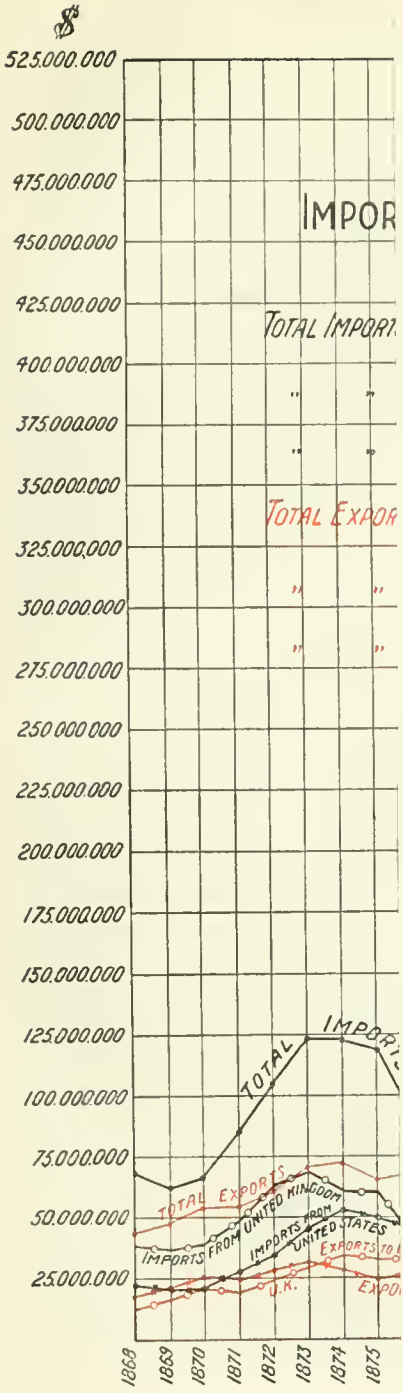
hundred and seventeen millions in 1873, two hundred and thirty in 1883, and two hundred and forty-seven in 1893, was less than two hundred and twenty-five in 1895, which proved the turning point. By 1903 values had doubled, by 1910 trebled, and by 1912 nearly quadrupled. Only Argentina among all the world's nations could match this record of growth.

In the exports farm products accounted for the chief absolute increase. It was notable that the growth was greatest and steadiest in the case of the products making least demands on the labour force. The export of wheat, which had never reached a value of nine, and in 1896 was only five millions, exceeded sixty in 1912, giving Canada third or fourth place among the wheat-exporting countries ; in the same period exports of wheat flour rose from less than one to more than sixteen millions. Flax-seed increased from practically nothing to six millions ; barley and oats showed slower gains. Animals and animal products, after rising rapidly, fell in the later years : the export of live cattle, after increasing in value from seven millions in 1896 to eleven in 1906, fell off to five in 1912 ; sheep dwindled steadily after 1900 ; eggs reached their climax in 1902, and butter and cheese in 1900, though cream exports suddenly grew to two millions in 1911 ; bacon, after rising from three millions in 1896 to fifteen in 1903, fell below eight in 1912. Hides, however, rose from one to five millions. The exports of sea products grew in value from ten to fifteen millions, an increase due almost wholly to rising prices. Mine products expanded much more rapidly, increasing from eight to over forty, silver providing half the increase, and gold, copper, nickel, coal and asbestos contributing important shares. Forest exports doubled, thanks mainly to higher prices : increase in spruce balanced the decrease in pine deals ; squared timber exports continued to decline ; pulpwood rose from half a million to six ; while planks and boards, accounting for nearly half the total value, increased fifty per cent in quantity and three hundred per cent in value. Manufactures, mainly those branches so closely connected with the first working up of natural products as often to be classified under farm

or forest activities, showed notable increase ; besides the flour, bacon, cheese and lumber products already discussed, the half-million exports of wood pulp grew tenfold. In the more advanced stages, paper increased from three thousand to nearly four millions, agricultural implements from half a million to nearly six ; cottons fell, leather remained stationary, carriages, aluminium, chemicals, liquors and iron and steel wares showed promising advance.

The United Kingdom continued to be Canada's chief market abroad, though in lessening degree : in 1896-98 it purchased fifty-nine per cent of the Canadian produce exported, in 1910-12 forty-nine. It took the great bulk of the grain, the cattle, the butter, cheese and bacon, the flour, the canned salmon, and the deals and squared timber shipped abroad. Next in importance ranked the United States, buying in the first three-year period thirty-one, and in the last, thirty-six per cent ; it provided the chief market for minerals, forest products, especially lumber and pulpwood, for wood pulp and paper, horses, sheep, hides, cream, flax-seed and chemicals. No other country, in spite of the persistent political endeavours to find wider markets, counted for three per cent of Canada's domestic exports ; Australia, for metals and machinery, carriages, lumber, paper and fish, the West Indies for breadstuffs and fish, Newfoundland for breadstuffs and coal, Argentina for lumber, Germany and Belgium for breadstuffs, and France for fish, minerals and machinery, were the most important outlets.

Meantime the total imports had been growing with much greater rapidity, from one hundred and eighteen millions in 1896 to five hundred and fifty-nine in 1912 ; the imports of merchandise for home consumption advanced fivefold, from one hundred and five to five hundred and twenty millions. The increase was mainly in manufactured goods, iron and steel, cottons, woollens and silks, leather, rubber, automobiles and electrical apparatus ; but raw materials such as coal, cotton and hides bulked large, and fruits, vegetables, breadstuffs and provisions rose in equal degree. Of this custom the United States obtained the lion's share : imports for consumption from the republic increased from fifty-eight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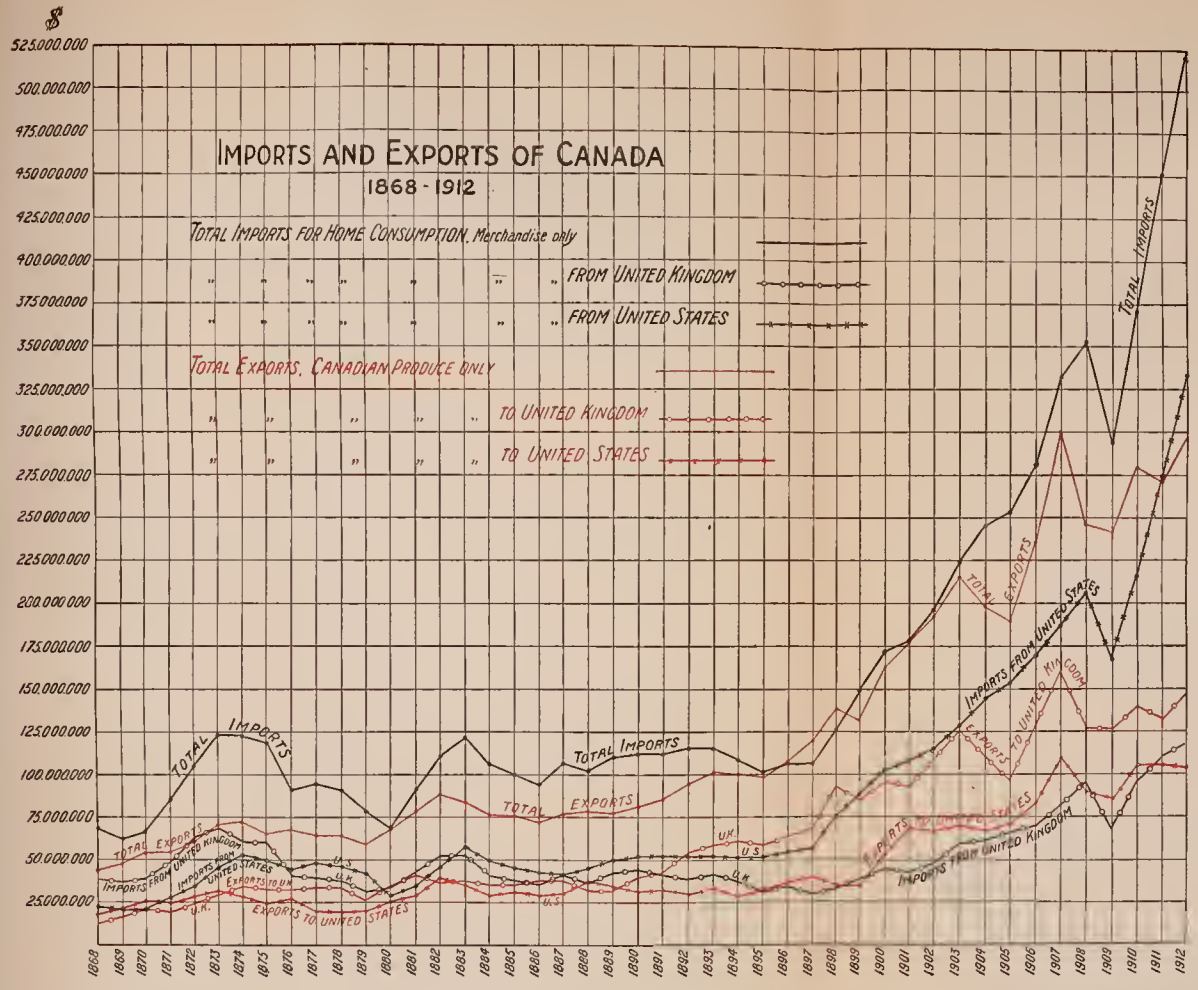
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to three hundred and thirty, and from the United Kingdom only from thirty-two to one hundred and sixteen. In 1868 Canada made fifty-six per cent of her purchases from the United Kingdom, and thirty-three from the United States; in 1872 fifty-nine and thirty-two; in 1888 thirty-eight and forty-six; in 1895 thirty and forty-nine; and since then, with fair steadiness, twenty-five and fifty-seven in 1897-99, twenty-four and sixty-one in 1910-12. In face of the substantial tariff preference accorded to British goods this record created disappointment in some quarters. It was to be noted, however, that at least the decline in the proportion of British imports was arrested, and the absolute amount greatly increased. The experience proved once more that the tariff factor in international trade is often counteracted by the abiding but less discussed non-political factors. The huge increase in imports from the United States consisted chiefly of coal, cotton, tobacco, Indian corn and lumber, raw materials which were essential and which Great Britain could not furnish as cheaply where wanted, or at all; settlers' effects, which no tariff tries to bar; semi-tropical fruits; and manufactures, two-thirds of the total imports, chiefly machinery and metal manufactures, carriages and automobiles, binder-twine, books, drugs and chemicals, oils, paper, leather goods, men's furnishings, jewellery, watches, musical instruments, and other commodities in which similarity of tastes, identical technical requirements, common models and standardization of parts, the ease and quickness of supply, common advertising and the intimate relations between allied or parent and branch establishments on both sides of the line made large trade inevitable. In fairly competitive lines British manufactures held their own. France, for wine and silks, jewellery and woollens; Germany for metal manufactures, furs, chemicals and fancy goods; the British West Indies and Guiana for sugar; India and Ceylon for tea; Belgium for metals, and Argentina for hides were, in the order named, the remaining chief sources of supply. No country of them all in 1912 contributed three per cent of the whole imports, so great was the preponderance of the wares of the United States and the United Kingdom.

In the expansion of foreign trade imports played a greater part than exports. It is significant that in the first decade of the century the rate of increase in the total trade and in the imports of Canada was exceeded by Argentina alone of the principal nations, whereas the rate of increase of exports was exceeded by Argentina, Australia, Belgium, China, Germany, India, Japan, Mexico, the Netherlands, New Zealand, Norway, Switzerland and the United Kingdom. Since 1896 exports of Canadian produce have exceeded imports for home consumption only in 1897, 1898 and 1902 ; in the later years of the period the excess of imports grew with ever greater momentum, until in 1912 it amounted to over two hundred and thirty millions, or more than seventy-five per cent excess. The fact of a surplus was nothing new in Canadian fiscal annals, exports, in fact, having exceeded imports only three times between 1867 and 1897, but, except in the boom days of the early seventies and eighties, the margin had always been a narrow one. The widening gap after 1902 simply reflected the flow of outside capital into Canada to finance the sudden expansion of its railroad, industrial and state and municipal undertakings. As yet the amount borrowed by Canadians or brought to Canada by settlers, tourists and investors exceeded the sum of the interest on past borrowings, the remittances abroad made by recent immigrants, the foreign expenditure of Canadian tourists, and shipping and insurance charges. Accordingly, under the influence of changes in the price levels in the countries concerned, the totals of imports and exports of goods were adjusted to balance Canada's international accounts—the variations in specific items of the export and import traffic being of course due to countless other factors. When this stage ended in Canada, as it ended in the United States in the seventies, a surplus of export goods would probably mark the change. Meantime there was no ground for the fears of vague evils from 'an unfavourable balance of trade,' fears based on surviving mercantilist prejudices ; the only question for consideration was whether the borrowed capital was being wisely invested, to ensure productive returns.

The Farmer : Troubled Prosperity

A new epoch in the annals of Canadian farming began with the middle nineties. In common with the rest of the world, Canada experienced a rise in prices as extreme and as important in its economic and social results as the fall in prices of the previous score of years. The grain-growing areas of the West developed with amazing rapidity. British Columbia's fruit industry advanced with long strides. The shift to mixed farming or specialized fruit, dairy or stock farming continued in Quebec and Ontario. The Maritime Provinces awoke to their agricultural opportunities. Markets developed in the mining camps of east and west and north, in the railroad construction camps, in the quickly growing towns and in other highly specialized farming districts. In the later years of the period, however, Ontario and Manitoba seemed to halt in their progress. The drift to the newest West and to the cities continued to drain the eastern farm of its men. The endeavour to organize the farmers as a political force for the redress of grievances was renewed with more success. Radical policies of state intervention grew in farmers' favour, especially in the West. The policy of active government guidance and instruction was continued and developed both by the Dominion and by the provinces east and west.

In British Columbia production could not keep pace with expanding markets. Fruit-growing was especially prosperous ; the orchard area of the province, which had grown only from 6500 acres in 1891 to 7500 in 1901, jumped to 30,000 by 1905 and 100,000 five years later, as the resources of not only the moist south-west, but of the irrigable valleys of the interior, were realized ; quality advanced with quantity, as constant victories in United States and British exhibitions revealed. High prices fostered dairying and poultry-raising on the coast ; in the cattle ranches of the interior, improvement in breed rather than increase of numbers was the feature. But the province did not yet feed itself. On the opposite coast the same general features were observable—the develop-

ment of local markets in the mining and industrial centres of Nova Scotia, the awakening of a new spirit of enterprise among government and people alike, the increased attention to scientific methods, the unquestioned advance in dairying and fruit-growing, and yet the continued importation of butter and cheese as well as meat and grain.

The three provinces of the central West claimed the world's first attention, and rightly. Swarming immigrants, expanding railroads, crops growing fast and land values growing faster, gave a prosperity great enough for the rest of the Dominion to share. In 1900, twenty-five million bushels of wheat grown in the three provinces; in 1911, one hundred and ninety millions, epitomize the story. In Alberta the cattle-rancher made way for the farmer, withdrawing into the foothills of the Rockies; winter wheat and the sugar-beet in Southern Alberta, spring wheat and oats in Central Alberta, mixed farming to an increased extent throughout, provided the country's wealth. Saskatchewan became the leading wheat-growing province of the Dominion, specializing in this single line to a greater extent than any other district. Manitoba, following slowly in Ontario's footsteps, turned reluctantly to mixed farming, but not in sufficient degree to prevent the necessity of Winnipeg importing butter and eggs and vegetables in large quantities from beyond the province. In Quebec and Ontario railway extension and mining discoveries brought the long-neglected and forest-covered north slowly under cultivation, and in the older areas production expanded rapidly. Ontario, which in 1891 grew two-thirds of the Dominion's grain, and in 1901 still three-fifths, grew only two-fifths in 1910, the bulk of it fed to stock on the farm; but in field crops as a whole it stood high, the value of its harvests in 1910 being equal to the crops of all the rest of Canada except Quebec, and the growth of fruit and stock and dairy farming more than made up for any falling away. After 1907 a halt came; the number of milch cows, other cattle, sheep and swine on the farms of Ontario decreased, though the cheese made, and in Quebec the butter, continued to expand at a slower rate. Simultaneous development of fresh home markets brought a rapid fall in exports of butter,

cheese and bacon, as has been seen, and even brought the central provinces to the pass of importing butter from Ireland and eggs from the United States.

This halt in farming progress afforded a text from which city critics preached to the farmer on the sins of neglected opportunities. He had been given growing city markets, higher prices, in the West free land and subsidized railways, everywhere ample government aid and guidance ; and yet the provinces by the sea were not self-sustaining, the prairie West went on wheat-mining, and in the central provinces production was at a standstill : the balance on the national books stood heavily against the farmer. The farmer had no need to fear the accounting. The farming population of Canada had doubled since Confederation, and the area occupied nearly trebled ; meantime the area in field crops had trebled, the wheat harvest had grown thirteen-fold, oats eight-fold, barley and hay four-fold, roots had trebled, the live stock on the farm had doubled, and the dairy industry and fruit-growing had attained great dimensions. And, if there still were many indifferent and unprogressive farmers, if the money that should have gone into under-draining often stayed in the savings bank at three per cent, if it were true that the yield of our farms would have been doubled had every farmer been as keen as the best to study market needs, to select seed and stock, to fertilize and adopt rotation and spraying, and to keep accounts, that only meant that the millennium was no nearer dawning in country than in town. Some markets had been added ; some had decayed. The protective tariff gave the farmer the factory that supplied one market for his eggs and milk and vegetables : the protective tariff raised the cost of the woollens in which he worked and the cement with which he built his silo, and hampered him in competing in the world market. Somewhere between the farmer and consumer an undue share of the grain and the stock stayed as toll, though railroad and elevator company, packer and miller, commission and retail agent joined in assurance of their large service and small profit. Especially should it not be forgotten that with fewer hands the farm was called upon to feed ever more mouths, that between

1900 and 1910 the farming population decreased in every eastern province except Quebec. There was scarcely a family in rural Ontario that had not sent a son and the bay colts and the second-best buggy to Manitoba or Saskatchewan, and another son to a city profession or trade. Immigrants had not fully filled their place, and what wonder that, with offers of thirty dollars a month for labourers finding no takers, the farmer of late years had adapted himself to the situation and turned to the work that required fewest hands? The sudden expansion of city population and of industrial activity had thrown many things out of gear, and time would be required for the readjustment; any solution of the question of providing the labour required for the intensive farming which was demanded, whether subdivision of farms, co-operative utilization of specialized labourers and of machinery, or building cottages and setting aside allotments for permanent labourers, involved much greater changes, not merely in the business management, but in the home life and social outlook of the farm, than would any mere doubling the capacity of a city factory by a cash-nexus employer. Meantime country and city alike, in the right perspective, had much reason, if not for absolute content, at least for large measure of gratification over their common progress.

The Day of the Miner

The years since the early nineties have witnessed remarkable progress in mining. The discovery of the fabulously rich placer gold of the Yukon, the Rossland boom, the development of the large deposits of low-grade copper in the Boundary district of British Columbia, the opening up of the Rocky Mountain coal-fields, the spectacular discoveries at Cobalt, the rapid extension of the production of structural materials, mark a period notable alike in speculation and in actual development. Improved transportation facilities, ready capital, increased technical skill, with the growth of mining engineering schools, rising demand in the home market, contributed to the success. The waste and fraud of stock-

jobbery, English and Canadian in Rossland from 1896 to 1900, United States and Canadian in Cobalt, especially from 1904 to 1906, scared away investment ; the higher cost of operation that came with higher prices of supplies and rising wages, especially important in an industry like mining, which receives practically no protection on the ore that is sold, and is heavily taxed on the bulk of the supplies that are purchased, slackened development after 1904 wherever the margin of profit was small. Yet the upward forces triumphed.

Gold led the way. In the Yukon work had been carried on ever since 1881, but it was not until 1894 that the rich gravels of the Klondike region were discovered on Quartz Creek, followed in 1896 by the still richer discoveries on Bonanza Creek. A world-wide stampede began in May 1897 ; by 1900 thirty thousand gold-seekers were in the camp. It was a poor man's field at first : the gravel was easily exposed by shaft-sinking or drifting below the overburden of low-grade muck and gravel, thawing by wood-fires or steam, or, somewhat later, by open work, thawing by sun and rain. The two and a half million output of 1897 grew to over twenty-two millions in 1900, much escaping estimate because of the desire to evade the government royalty imposed ; three and a half miles of claims on El Dorado Creek yielded over $25,000,000. After 1900 the richer areas became exhausted ; production steadily declined till 1907, when it was only three millions ; then development on a large scale by hydraulic and dredging appliances, necessitating heavy investment, utilized the lower-grade gravels, and an upward trend began once more. The placer discoveries in Atlin, in Northern British Columbia, in 1897, led to the same sequence of development, while modern methods were applied to the old Cariboo workings. Simultaneously lode-mining was reaching new heights, in the Rossland and later in the Boundary districts, contributing the bulk of the five millions a year which has been British Columbia's steady average since 1900. The Nova Scotia field continued its modest yield, while Northern Ontario revealed new quartz deposits.

The silver-lead mines of the Slocan, Lardeau and Fort Steele districts of British Columbia continued to expand

until 1900, when labour troubles and United States tariff regulations lessened the output. A sliding-scale bounty on lead paid by the Dominion government, new markets for lead in China and Japan, the establishment of new corroding plants for the manufacture of white lead, and improvements in metallurgical practice led to renewed activity, followed after 1907 by another brief relapse. Meantime, the building of the Timiskaming and Northern Ontario as a colonization railway had opened up the Cobalt silver district. The richness of the naked silver veins, and the easy access from Canadian and United States centres, brought speedy development, and Cobalt was soon recognized as one of the world's greatest camps; by 1911 the output, rising steadily, had reached the height of over thirty million ounces, then worth refined about fifty-three cents an ounce. The nickel-copper deposits of Sudbury were developed rapidly, notable incidents being the entrance into the field in 1899 of an important English corporation, the Mond Nickel Company, and the formation in 1902 of the International Nickel Company, controlling the chief Canadian deposits, as well as New Caledonia and United States holdings. Bruce Mines were reopened, and the copper pyrites deposits of Quebec worked more extensively. Iron remained a disappointment; in spite of the bounties on the smelting of Canadian ore, the output, after rising to four hundred thousand tons in 1902, fell to half that quantity in 1911, foreign ore from Newfoundland and Minnesota, first used in Canadian furnaces in 1896 and first bountied in the following year, steadily taking its place.

Industrial expansion extended the production of coal from three and a half million tons in 1895 to nearly thirteen million in 1910, importations increasing in about the same ratio. Nova Scotia retained its lead, producing over half the whole, nearly half its output being consumed in the Maritime Provinces, one-third in Quebec and Ontario, and the rest chiefly in United States; the opening of the Crow's Nest collieries in British Columbia and Alberta brought up the western percentage: the vast deposits of lignite, bituminous and semi-anthracite coal of the western prairie provinces were tapped in many places. The Crow's Nest coal proved

of excellent coking quality, and the growing production of coke cheapened mining operations in British Columbia ; in Nova Scotia as well the production of coke expanded rapidly, but Ontario relied mainly on coke imported or made from imported coal. In petroleum the features were the temporary development of new fields in Tilbury and elsewhere, the steady decline of the old fields, the increasing reliance on importation both for crude and for refined oil, and the control of the situation by the Standard Oil Company, through its affiliation with the Imperial Oil Company. The production of natural gas in South-West Ontario and at Medicine Hat, Alberta, grew steadily. The salt industry, now mainly controlled by the Canadian Salt Company, held its own. The development of the asbestos quarries continued rapidly until 1908, thanks to improved mechanical appliances and expanding markets ; then the competition of foreign mines worked at lower costs and the activity of merger promoters brought disturbance and decline. The gypsum deposits of the Maritime Provinces furnished increasing yields. The production of Portland cement was roughly doubled every three years after 1896, reaching over five and a half million barrels in 1911 ; importations fell steadily until the latter year. Bricks and other clay products reflected the same increasing demand.

Of these various sources of wealth, in 1911 coal was first in value, on the Mines department valuation, then silver, pig-iron, nickel, gold, clay products, cement, copper, stone, asbestos, natural gas, gypsum, lead, salt and petroleum. On the basis of local values the non-metallic products would advance in rank. In the forty-odd years since Confederation the production of minerals had grown ten-fold and the exports thirty-four-fold. Canada had come to lead the world in the production of nickel, asbestos and corundum, and ranked third in silver mining ; she was sixth in coal production, but yet, thanks to her coalless St Lawrence valley, was forced to import more coal than any other country. The record as a whole, with all its failures, all its achievement, all its promise, gave notable grounds for satisfaction.

Fisheries: Development and Stagnation

The fishing industry shared least in the Dominion's industrial expansion. In 1911 there were fewer fishermen employed than in 1896; in the same period the value of the catch rose only from twenty millions to thirty, the bulk of the increase being contributed by British Columbia. This slow development could not be attributed to any general lack of resources, for time only made clearer the Dominion's pre-eminence. Nor could it be charged to any slackening in the fostering activity of the federal government. On the contrary, this period witnessed still further efforts by the Fisheries department: marine laboratories were established at St Andrews, on Georgian Bay, and at Nanaimo; Scottish herring experts were employed to improve the process of curing; co-operative cold storage warerooms for bait were subsidized, and liberal grants made possible a fast freight service and a cheapened express service for fresh fish between Maritime Province points and the upper provinces, counterbalancing in some degree the greater nearness and reliability of the Boston or Portland markets; the same encouragement was later given to the British Columbia shippers to the prairie markets. The counteracting forces were varied. Reckless overfishing had exhausted some sources of supply, notably in the Great Lakes.[1] Hostile tariffs barred near markets, while the conservatism of the Atlantic fisherman, his persistence in primitive methods of curing and packing, prevented the full exploitation of the markets that were available. The rise of prices increased the cost of working in some instances to a profitless level. The attractions of other industries drew off the fishing population. Not only international complications, but the conflict of jurisdiction between the Dominion and the provinces played a part. The decision of

[1] The Ontario Game and Fisheries Commissioner gives his authority to the story that fifty years ago in Lake Ontario as much as 180,000 pounds of whitefish were caught in a small net in a few hours; from 1892 to 1906 the total catch of whitefish in the lake averaged only 250,000 pounds a year.—Report, 1909-11, p. 7. Of late, the whitefish catch in the Lower Lakes has increased.

the Privy Council in 1898 that the province had proprietary rights in the fisheries, but that the Dominion had legislative jurisdiction, implying power to affect those proprietary rights, and that both authorities had the right to levy a tax or licence, made confusion worse confounded ; Ontario, and, to a less extent, Quebec, assumed the regulation of its domestic fisheries, but other provinces, by a tacit agreement, for a time left the Dominion in control. A noteworthy instance of the injury caused by this lack of clear division of authority was afforded by the oyster industry : scarcely a year has passed since Confederation without laments over its stagnation and decline, but the conflict of jurisdiction prevented the adoption of the only certain means of regeneration, the investment of capital in oyster culture on beds of which the control for a term of years was assured. In 1912 the Dominion waived its leasing rights over oyster areas to Prince Edward Island.

On the Atlantic seaboard there were few new developments. Cod-fishing continued the staple industry, though lobster canning and the live lobster trade ran it close. The danger that the lobster industry would share the fate of the oyster industry was still apparent : the close season was observed, but the regulations prohibiting the canning of berried lobsters or lobsters less than nine inches long were more difficult to enforce, and were in fact flagrantly disregarded ; the rising prices and the increasing number of canneries concealed the depletion for a time. In the lakes of Ontario and Manitoba a noteworthy development was the acquisition by United States fishing companies of the control of the great bulk of the industry, so that Canadian consumers were forced to buy supplies from United States combines. The Pacific coast witnessed marked advance. The salmon industry expanded in spite of trap-net competition in Puget Sound ; canneries were built on the northern rivers and Vancouver Island ; the once-scorned cohoes and chinooks and hump-backs were canned increasingly in the years when the sockeye run was small ; the dog-salmon was put to use by Japanese fishermen, who salted it and shipped it to Japan. The halibut fisheries in the vast banks in the sheltered seas between Queen Charlotte and Vancouver Islands and the

mainland, which had begun in the early nineties, grew to importance through the operations of United States companies, which had then the rights of trans-shipment in bond to the opposite coast and of purchase of supplies, once vexed questions in the Atlantic fisheries. The Japanese, who had largely replaced Indian and white fishermen in the salmon industry, developed the possibilities of the herring trade, shipping the salted product to the Orient. New activity marked the Pacific whaling operations. The Dominion over, however, it was not the deep-sea fisheries that counted most in value; salmon totalled highest in this period, and lobsters second, with cod, herring and mackerel following.

The Manufacturer's Golden Age

The years since the middle nineties have been the Canadian manufacturer's Golden Age. The opening of the agricultural West and North, the growth of the urban East, gave him at last the expanding markets needed. With few exceptions the manufacturers rose to the occasion, added a new daring to the old solidity, and forced success. Orders poured in, factories ran overtime, new wings were built, new machinery installed, new branches established. Ontario and Quebec retained their primacy, Ontario producing fifty and Quebec thirty-one per cent of the total output in 1910, but Nova Scotia at last came into its own, and in the later years the West made rapid progress towards meeting its own primary wants. The scale of operations expanded; the number of establishments became smaller, but the average capital of all industries employing five hands or over increased from $32,000 in 1900 to $65,000 in 1910; in agricultural implements the increase was from $159,000 to $587,000; car-works, from $353,000 to $1,490,000; electrical apparatus, $210,000 to $368,000; paper, $268,000 to $660,000; and cigar factories, $18,000 to $97,000. The total value of the products of factories employing five hands or over had grown from $368,000,000 in 1890 to $481,000,000 in 1900, but in the next decade it expanded to $1,165,000,000. The capital employed increased at a still more rapid rate, the salaries and wages

paid more slowly. Greater specialization became possible. New subsidiary industries started up. The tendency towards combination continued with accelerated force, now that the prospect of promoters' profit had been added to the prospect of a monopolized market as motive force. Capital poured in ; British loans for the most part financed state and municipal, transportation and other public utility undertakings ; but indirectly manufacturers shared in the flood of credit ; United States investment took the form of active participation in industrial development. Labour problems grew; skilled workmen proved difficult to obtain ; labour unions waxed stronger ; employers' associations were organized to meet them. The machinery of distribution underwent rapid transformation. A generation's change was crowded into a decade.

For all the change and the new paths blazed, the industries resting on farm products continued to be the most stable and most important of Canadian manufacturing activities. With the flood of western grain rising to ever higher levels, with water-power and enterprise at hand and markets at home and abroad, milling grew apace, especially at points on the course of the grain from the wheat-field to the sea. Between 1900 and 1910 the capital invested grew from fourteen to forty-three millions and the value of the product from thirty-one to eighty-two millions. By 1912 the milling capacity of the Dominion was fourfold its consuming powers, and the export trade had become of first importance. Meat packing, canning and preserving, cheese and butter making, expanded as rapidly in the earlier years of the period, but met a check in the failure of domestic supplies of stock, and fruit and vegetables, and milk to expand as fast as the markets for the finished product, or in the diversion of the raw materials into other channels. Lessening bark supplies and competition from foreign tanneries operated by packing-house monopolists of hide supplies did not prevent tanners and manufacturers of leather goods increasing steadily not only the quantity but the range and quality of their wares. Distilling and brewing showed fair progress, the victories of the friends of prohibition not balancing the growth of thirsty cities and

the coming of immigrants from beer-loving lands. In the tobacco industry, improved curing methods and increased customs discrimination against foreign tobacco led to greater use of the tobacco of Quebec and Western Ontario and the Okanagan valley; cigar and cigarette making advanced much more rapidly than the manufacture of smoking and chewing tobacco.

The textile industries of Canada all rest on imported products; domestic wool-growing and flax-growing—for the fibre—have declined, and what wool is grown does not for the most part meet the needs of the home manufacturer. This did not prevent cotton manufacturing from thriving; the growing home market and increasing specialization made it less necessary to seek an outlet abroad, and the exports to the Orient dwindled. Silk factories were slower in developing, the lack of trained workmen and artistic designers being especially felt in this field; but from the zero of 1900 the factories grew to four a decade later. The woollen industry, or rather the cloth-making branch, was late in achieving success. The manufacture of woollens has traditionally been regarded as a precarious industry: the sudden shifts of fashion, the necessity of producing hundreds of patterns, have made success harder to win and harder to keep than in the staple cotton industry or in woollen hosiery and knitting. The very fact of its early establishment has meant the survival of many small mills with obsolete equipment, side by side with the newer and better equipped factories; industries like steel-making or pulp-making, coming late, have been able to start abreast or ahead of the world's average. The preferential tariff of 1897 made possible vigorous competition from British woollen manufacturers, thanks to lower labour-cost, interest-cost, fuel-cost, to wider markets, and, added the Yorkshireman, to more modern methods, or, retorted the Ontario manufacturer, thanks to Batley and shoddy. Even the partial repeal of the preference failed to bring immediate prosperity, just as much higher protection has failed to give prosperity to the industry in the United States. In the hosiery and knitting factories, on the contrary, whatever the explanation, newer equipment, greater enterprise or less

serious British competition, production was more than trebled between 1900 and 1910 ; the carpet, blanket and flannel branches showed steady expansion. Tailoring to order gave way before the factory's progress in style and efficiency ; the value of men's ready-made clothing grew from eight to twenty-five and of women's from two to fifteen millions in the same period.

In spite of the growing use of steel and concrete in construction, timber remained indispensable ; demand increased, and prices soared the world over. In Canada the general public began to appreciate what prophets crying in the wilderness had long foretold, that the forest wealth of the Dominion, currently much exaggerated, was really in danger of exhaustion by fire and axe within no distant period. The new conviction led to the adoption of true principles of conservation, the setting apart of reserves, better protection against fire, regulations in a few instances as to size of timber cut, and reforesting. This went well with the idea then becoming fashionable that the manufacture of raw forest materials should be carried to the most advanced stage possible within the borders of Canada. One by one the provinces, by virtue of their power, not as legislators but as owners of crown lands, took steps to secure this end. Ontario led the way by making the sawing of the logs in Canada a condition of licences to cut timber on crown lands, and in 1900 extended the requirement to cover the manufacture of pulp ; by 1911 British Columbia, Quebec and New Brunswick had followed her example with variations, and Ontario had gone still further by insisting on the pulpwood of the crown lands being manufactured into paper. The plea that these were measures of conservation was transparent pretence ; there is only one way to conserve the forest, and that is to ensure that the annual cut shall not exceed the annual crop. But on straight protectionist grounds they were defensible, since they were not aiming at building up exotic industries, but were simply hastening by a few years a development inevitable in view of Canada's water-power and forest wealth : the report of the United States Tariff Board in 1910 on the paper industry showed that the average cost of

production of a ton of newsprint in Canada was $27.53, and in the United States $32.88. A similar prohibition of export of tanbark from Ontario, giving the tanners artificially cheap supplies, was found to be unfair to the producers of tanbark, and, as they had more votes than the tanners, the regulation was suspended. But the migration of Michigan saw-mills to Ontario, and the establishment of many new pulp and paper mills in all the provinces concerned, convinced the general public of the expediency of the policy in its larger applications; and, just as the newspapers of the United States, protectionist and free trade alike, had fought for free paper, Canadian newspapers unanimously upheld the programme of restriction on the export of their chief raw material. Few industries developed with as great rapidity as pulp and paper making, usually carried on conjointly in the newer mills: the seven millions invested in 1900 had multiplied threefold five years later. English investors, it is true, had several disastrous experiences, but enterprises managed on the spot scored striking success.

The ideal set forth in 1887, of building up a completely self-sustained iron and steel industry in Canada, was still unrealized. The initial stage was lacking; in spite of the stimulus of higher bounties, Canadian ores were not produced in sufficient quantities to meet furnace needs, and in 1911 only 67,434 tons of Canadian ore were used as against 1,628,368 tons of ore imported from Newfoundland and the United States. In the more advanced stages, however, remarkable success was scored. The fifty thousand tons of pig-iron and the thirty thousand tons of steel produced in 1896 increased to 917,000 and 876,000 tons respectively in 1911. Many plants contributed to this rapid growth: the Nova Scotia Steel and Coal Company, an organization typical of the best features of Canadian industrial management, developed from small things to great by shrewd planning and hard work, its directors knowing when to go slow and when to take occasion by the hand. The Dominion Steel enterprises in Nova Scotia and the Clergue companies at the Soo, built with the lavish suddenness of the American promoter careless of future problems, after much stock-jobbery and painful reorganization

played a large part in Canadian industrial development. Notable, too, were the enterprises of the Drummond group, courageous pioneers in Canadian iron and steel making, and advocates of the use of native ores, but themselves forced to rely on the Midland furnace, using Minnesota as well as Ontario ores, to make up for the decay of their Londonderry and Three Rivers district plants. There were the Hamilton furnaces, which underwent many financial reorganizations, and the enterprises of the Canadian Northern interests at Port Arthur, besides other minor installations. Progress came in other metallurgical fields as well: the gold-copper ores of the Boundary district were treated on an unusually low basis of cost; at Trail a refinery, using the electrolytic process, was added to the smelter there for the further treatment of silver-lead bullion; in Ontario the Cobalt ores were at first shipped to New Jersey and even Colorado plants, but later, smelters at Thorold and Copper Cliff and Deloro captured a large custom, the last-named establishment having previously succeeded after long efforts in utilizing economically the arsenical pyrites of Eastern Ontario. The importance of Canada's water-power resources was strikingly demonstrated by the fact that bauxite ores were imported from Germany and treated at the plant established at Shawinigan Falls by the Pittsburg Reduction Company—the United States aluminium trust—and that large shipments of aluminium were then made back to Germany. The water-power of Niagara and the Ottawa was used to produce calcium carbide and carborundum on a large scale. Oil-refining came mainly under control of Standard Oil interests, though independent plants continued in special lines. The manufacture of heavy chemicals developed rapidly, but except for pharmaceutical preparations refined chemicals were not produced on a large scale. Mining and railroad construction brought prosperity to the explosives industry, and activity in manufacturing and in building involved steady expansion of the oil, paint and varnish business. Glycerine was produced as a by-product of soap-making.

It was in the making of tools and machinery that Canadian manufacturers had won their first successes, and in this field

success continued. In agricultural machinery the Canadian companies held the bulk of the home market, and built up a large export trade in Europe, Australia and South America, in face of keen United States competition, the leading firm sending half its output abroad. The value of the electrical apparatus manufactured jumped from two to fifteen millions in the first ten years of the century. Locomotive and car-works increased rapidly in number and capacity, but could not keep pace with railroad demands. The motor-car called a new industry into being, beginning usually as an assembling plant in conjunction with some United States company, and gradually undertaking more and more production on the spot. Some notable progress was made in steel shipbuilding in Ontario and Nova Scotia, but, in spite of proffered bonuses and bounties, the industry did not attain very great dimensions.

The Merger Era

With the larger market came increasing specialization, a tendency strengthened by the merger movement, bringing many factories under joint control. At the same time the counter process of integration, the endeavour to build up a self-sufficient business depending on outside sources for as little as possible in the way of services and material, was equally notable. The larger iron and steel companies sought to secure control, not only of adequate sources of raw material —ore, coal and limestone—but of an assured outlet for their semi-finished products, by establishing rail or rod or wire mills. Department stores set up furniture or whitewear factories. The transcontinental railroads, especially the Canadian Pacific, branched out into many subsidiary activities, establishing steamship lines on lake and ocean, building and operating hotels at important centres, carrying on irrigation enterprises, building car-works for the manufacture or repair of rolling stock, and keeping close control of the express and telegraph and sleeping-car services which on United States roads were usually under outside management. Little advance was made toward localizing industry in special districts ;

the Essex and Welland peninsulas might show predominance in the automobile industry, Berlin specialize in footwear and furniture, Brantford concentrate its activities on machinery and metal-working, or Quebec continue a shoe-manufacturing centre, but there developed no instance of such complete localizing as afforded by Troy in collar-making or Birmingham in metal trades; the characteristic of Canadian industrial towns continued to be the medley of enterprises rather than their similarity.

Undoubtedly the most striking feature of the period was the growth of combinations among producers and distributors. The concentration of industry in fewer plants and the increase in the facilities for communication made it possible to come to terms in endeavours to control the market. Price agreements came to obtain in very many lines of industry, frequently taking the advanced form of pools. An investigation in 1905 into a plumbers' combine in Toronto, where jobbers of supplies, master plumbers and the plumbers' union had entered into an exclusive alliance against outside competitors and the general public, resulted in uncovering the existence of combines in a score of industries, especially in the manufactures of metals. A single Toronto firm of accountants was found to control the operation of the majority of these organizations. Suit was brought against the tack combine in 1905, as a beginning, but, although the papers of the combines' clearing-house had been seized and evidence was easily obtainable, the prosecution was not pushed, for what reason the lay public did not understand.

More characteristic of the period was the growth of out-and-out consolidation, following some eight or ten years after the main movement in the United States. The usual arguments were put forward as to the economies in operation which would result from combination, the specializing of product, the saving in executive and sales force, the elimination of cross-freights. The regulating of prices was usually an object, whether this involved an increase of prices already giving adequate profit, or merely an ending of cut-throat competition. There was, however, a new factor involved of greater potency: it was not so much the profit of operation

as the profit of promotion that was sought. In increasing degree the initiative in the formation of mergers came from financial promoters unconnected with the industry, and the motive lay in the possibility of selling the bonds and stocks of the greatly over-capitalized new companies formed, to a public as ready to rush to share in the hoped-for monopoly of a specific trust as to denounce trusts in the abstract.

The merger movement entered upon its full activity only with the recovery after the short depression of 1907-8. In the three years 1909, 1910, 1911, according to the computation of the *Monetary Times*,[1] some forty-one industrial combinations were formed, absorbing one hundred and ninety-six separate firms or companies. The aggregate capitalization of the separate companies had been $125,000,000; the authorized capitalization of the mergers reached $335,000,000. Among the more important amalgamations were the Dominion Steel Corporation, a holding company formed to take over the stock of the Dominion Iron and Steel and the Dominion Coal Company; the Canada Cement Company, comprising eleven companies, with $35,000,000 capital authorized and $29,000,000 issued; the Amalgamated Asbestos Company with $25,000,000 authorized capital, and later the Black Lake Consolidated Asbestos Company with $5,500,000 capital; the Canadian Car and Foundry Company, including the three largest establishments in Canada, and issuing two-thirds of its authorized $20,000,000; the Steel Company of Canada, capitalized at $35,000,000, comprising Hamilton and Montreal steel and screw works and rolling mills, as well as the Canada Bolt and Nut Company, itself a recent merger of five Ontario plants; National Breweries, Quebec, with eleven members; the Dominion Canners Company, formed in 1910 with $12,500,000 capital by the inclusion of twenty-three previously independent companies, with the Canadian Canners Company, organized five years previously with about the same number; the Canadian Consolidated Rubber Company, incorporated in 1906 to take over five leading companies; Penmans Limited, another of the earlier for-

[1] January 6, 1912.

mations, including Ontario and Quebec knit-goods factories ; the Canada Iron Corporation, with $11,000,000 authorized capital, including the pioneer Radnor and Drummondsville charcoal furnaces and the Londonderry furnaces, a newer coke furnace at Midland, and half a dozen foundries ; the Dominion Textile Company, organized in 1905 to take in four companies with fifteen establishments, spinning and cotton mills, bleacheries and print works, a fifth company being added in 1910 ; Matthews, Laing, a $7,000,000 consolidation of three packing firms ; the Sherwin-Williams Company of Canada, comprising three paint companies, one a Canadian consolidation of some years' standing, another a branch of an American company, and the third a branch of an English house ; the Canadian Coal and Coke Company, incorporating five western enterprises in its $21,506,600 fold ; three milling combinations—the Canadian Cereal and Milling Company, the International Milling Company, comprising the previous merger with an additional western company, and the Maple Leaf Milling Company ; and the $11,500,000 Ames-Holden, McCready boot and shoe consolidation. Few branches of enterprise were overlooked : bread, milk, ice, fish, lumber, explosives, felts, soaps, jewellery, carriages, silk, thread, wood-working machinery, were all one to the promoter. Nor was the movement confined to industrial establishments. Light and power companies were included, notably the Montreal Light, Heat and Power Company, incorporated in 1901 and absorbing in the next ten years ten companies with valuable perpetual charters in the neighbourhood of Montreal, the Quebec and Sherbrooke amalgamations in Quebec, and the Seymour Power and Mackenzie interests' absorptions in Ontario. The chief lake and river navigation companies came under single control in 1912. The three big railroads continued to pick up small lines as feeders in all the provinces. The ocean steamship companies choked competition. Finally the banks joined the procession ; financial insecurity, the need of covering supplementary territory, or the desire to figure among the dominating financial powers leading up to the Northern-Crown, Commerce-Eastern Townships, Union-United Empire, Royal-Colonial, Royal-

Traders, Nova Scotia-New Brunswick, Home-Internationale and other amalgamations.

This epidemic of mergers was accompanied by serious evils, both in promotion and in operation. The investor to his cost found that, while a few of the new companies were prudently financed, the majority were over-capitalized. Taking existing capitalization or assets as the test, there was little question, after making due allowance for the instances where capital had not kept pace with increasing assets, and for the setting aside of a portion of the funds realized for extension of plant and increased working capital, that there was a huge gap representing the inordinate profits of promoters and vendors. The cement combine was perhaps the most flagrant instance, though several smaller enterprises with their lesser opportunities achieved results relatively as startling. Taking earning capacity as the test, the over-capitalization was equally great in some cases, as the holders of the asbestos mergers found to their cost. And even where the earning capacity was sufficient to provide the promised dividends, the consumer found that it was frequently at his expense, and that in some instances no savings of importance were made by combination, and that in others the savings were not shared with the public. The criticism passed upon the movement from this standpoint was not always discriminating. The combinations proved a menace to the public only where they possessed monopoly powers, either from control of natural resources, or from ownership of public service franchises, or, less securely, from the very magnitude of the capital at command and the close interrelation of industrial, banking and railway interests. Where the field was open to competition, efficiency and cheapness might be increased rather than lessened ; there was little likelihood of permanent monopoly in bread or flour, or soap, or carriages, or beer ; for a time a canning combine or a tinware ring might hold the field through its control of some indispensable articles which independent producers could not furnish nor importers bring over the tariff wall, but the field was too easily entered for monopoly to continue long. Meantime, on such goods as boots and shoes, soap, flour,

leather, cement, railway equipment and steel products, canned fruit and vegetables, knitted goods and paints, the tariff both facilitated combination and made possible the maintenance of high prices, though mergers were effected in industries enjoying little tariff protection—usually public services or production for local wants—and in some instances international agreements were made which would have rendered the remedies of freer trade inoperative.

Regulation, where regulation was needed, was slow in coming. The company laws of the Dominion and the provinces, based largely on English models, were fairly adequate, but the need grew apparent for the settlement of the vexed issue of the relative jurisdiction of federal and provincial authorities in chartering companies, and for greater publicity, especially in requiring details of the prices paid by promoters to vendors. After a few years' experience the over-audacious promoter supplied his own cure, and the market sagged with water-logged securities, until a new generation of experience-hungry investors had come forward. The consumer was less safeguarded than the investor. In 1889, after an inquiry by the House of Commons into the beginnings of the combine movement, the old common law prohibition of combination in restraint of trade was made statutory ; in 1897 a clause was inserted in the Customs Act providing for the lowering of duties on goods in which a combine was proved to exist in Canada. But in both cases enforcement was left to private initiative, and the expense involved, and the fear of still greater evils from the hostility of the offending company or allied interests, deterred action. The Anti-Combines law of 1910 made a step forward in facilitating the process of investigation, but failed to take the essential step of laying upon the government the burden of enforcement. Only a single suit was brought under the tariff clause, the complaint of the publishers against the makers of newsprint paper ; and by 1912 the Anti-Combines Act had also been invoked in only one case, the United Shoe Machinery Company's monopoly being investigated and condemned. With a conflict of jurisdiction between federal and provincial authorities, the general desire for rapid industrial development without too closely

counting the cost, and the power of important financial interests in political circles, inaction was explicable, and had its advantageous side in preventing blind running amuck, before study had been made of the trend of industrial evolution.

Public Ownership and Public Regulation

The unrest created by the rapid growth of powerful corporations gave new force to the movement in favour of public ownership, particularly in the field of quasi-public utilities. The federal government, with the conservatism of the larger and more unwieldy body, less closely in touch with industrial undertakings, made few experiments. The failure of the Intercolonial Railway to make ends meet was held to condemn all proposals for government ownership, though the strategic considerations determining the choice of route, the competition of the all-water route and of a railway running at the base of its narrow-angled sides, the lack of local traffic for long stretches, and the failure to provide adequate western connections, might fairly share responsibility with political mismanagement. A movement on the part of Sir William Mulock to nationalize the telegraph and telephone companies found little support in the government, and, when the project of a second great transcontinental was broached in 1904, the road was not made a national undertaking, though a long-term partnership between the state and the Grand Trunk Pacific marked an advance over the method adopted twenty years earlier. At the close of the period the conviction of the existence of serious abuses in the operation of terminal elevators led to a decision in favour of rigid control, and, if need be, operation by the federal government. The provinces, with more freedom for experiment, went further in this direction. Ontario built its colonization railroad to the north, controlled by a more or less independent commission; Alberta and Saskatchewan established telephone systems; Manitoba embarked on ill-fated experiments in operating interior elevators and provincial telephones. Especially in the West, public utilities came to be conducted largely by the municipalities themselves. The movement in the East,

except where waterworks were concerned, was less sweeping because of more conservative convictions or ties of existing grants of franchise. In Ontario an interesting partnership was established between the provincial government and numerous municipalities for the provision of hydro-electric power at cheap rates, resulting in substantial reductions to consumers in many centres.

Side by side with the feeling in favour of public ownership grew the conviction that public regulation was a wiser solution than ownership of the problem of natural monopolies. This belief was strengthened by the success achieved by the Dominion Railway Commission—which took the place of the cumbrous House of Commons committee—in settling the vexed questions between shipper and transportation company with businesslike dispatch and even-handed justice ; less popular recognition was accorded to the work of the Public Service Commissions, established by Nova Scotia and Quebec, and Ontario's Railway and Municipal Board. The success of the Railway Commission led to its being given supervision of express, telegraph and telephone companies. Constant friction was caused by the endeavour to settle disputes between municipalities and the public service corporations to which they had granted long-term or perpetual franchises, by appeal to the ordinary courts ; and, whether the fault was the lack of foresight of the framers of the franchise or the tendency of courts to give the private corporation the benefit of the doubt, there was a general feeling that the only alternative to public ownership was regulation by strongly manned commissions, unhampered by traditional court-rules and precedents, and in touch with the industrial needs of to-day. Another interesting venture in this field of regulation was the passing in 1907 of the Industrial Disputes Investigation Act, more familiarly known as the Lemieux Act. This measure, due to the initiative of the deputy minister of Labour, W. L. Mackenzie King, endeavoured to secure harmony between capital and labour in the field of public utilities, where the interest of the citizens at large was most closely touched, by insisting on impartial investigation before the declaration of strike or lock-out, in the hope that the calming

of passion and the pressure of an informed public opinion would compel peace. Unbroken success was not achieved, but in most cases, thanks largely to the precedent of informal conciliation set by the chairman of the first important board of inquiry, Adam Shortt, noteworthy services were rendered ; and Canada might justly hold herself to have made a notable contribution to the cause of social peace and social justice among the nations.

Co-operative Effort

Co-operation in its varied forms did not play the part in Canada's industrial life its enthusiastic advocates had hoped. Consumers' co-operation found almost insuperable obstacles in the scattered and mobile population, the individualistic temperament and the lack of the class-consciousness underlying the English or Belgian movement, the carelessness of small gains, and the established strength of the department store and mail-order house. Latterly, however, the rising cost of living and the coming of old-country co-operators gave new force to the movement ; and in 1910 the Co-operative Union of Canada counted twelve affiliated societies, four in Nova Scotia, four in Ontario, two in Quebec, and one each in Saskatchewan and British Columbia. Credit co-operation took root only in Quebec, where the homogeneous population, the relative lack of utilization of the chartered bank's branch facilities, and the enthusiastic service of Alphonse Desjardins and his coadjutors, chiefly parish priests, gave wide measure of usefulness and success. Producers' co-operation was confined almost entirely to agriculture, and particularly to those districts in which special branches of farming were highly developed and concentrated. Cheese factories and creameries seemed at one time to offer a promising field, but the individualistic joint-stock company and the individual proprietor came to play more important parts. An important step was taken in 1912 in the formation in Prince Edward County, Ontario, of a co-operative farmers' organization to standardize production in the chain of dairy factories controlled and to market products direct. Fruit-growing, on account of the lack of

standards in selling, the perishability of the product, and the necessity of uniform grading and packing, specially lent itself to co-operative effort ; and throughout Ontario, British Columbia and, in less degree, Nova Scotia, societies for marketing fruit and purchasing supplies multiplied in the early years of the twentieth century ; finally in 1912 came the Co-operative Fruit Growers of Ontario, Limited, representing thirty of the fifty societies in the province, and designed to act as a wholesale selling and buying agency. At the same time capitalistic joint-stock companies were engaging in fruit-growing or fruit-marketing in Ontario, on a large scale, making it evident that the individual farmer would find in co-operative effort the only alternative to underselling by the better organized corporation. In Saskatchewan, co-operative elevator companies, given financial backing by the provinces, scored notable success, and Alberta followed its lead.

Changes in Distribution Methods

In the distribution as distinguished from the manufacture of goods, important changes came about. ' It is conceded,' declared Chief Justice Falconbridge in 1910, in dismissing the conspiracy suit brought against the Dominion Wholesale Grocers' Guild for preventing a co-operative society which was engaged in both wholesale and retail business from obtaining supplies at the lower rates, ' that the proper method of distribution of goods is from the manufacturer through the wholesale dealer to the retailer and then to the consumer, because this is the most economical method.' Doubtless in a country like Canada, with its vast distances and scattered population, and with the inability of the average manufacturer to provide either the quantity or the range of product which would justify maintaining a separate sales agency, this is largely true, and particularly in the grocery or hardware trade, with the wide variety of products handled. But it is not true in all cases ; and the striking feature of recent commercial development has been the elimination of the wholesale dealer or the jobber. Manufacturers producing on a

large scale have found it advisable to sell direct to the retailer or even to the consumer, saving the middleman's profits and securing more independence by closer touch with buyers. Meat-packers have established chains of stores for selling provisions direct to the public, and some tobacco companies and boot and shoe firms employ the same means. To a less extent a mail-order business has grown up between factory and ultimate consumer. In the publishing trade the jobber has little place ; sales are made direct to the retail bookseller or to the reading public, through circulars or subscription agents. The manufacturer's retail store shades off into the exclusive agency set up for the sale of high-grade goods, especially those involving some technical capacity on the part of the salesmen, as typewriters, cash registers, sewing-machines, automobiles, and farm machinery, as well as hats and clothing. The increasing use of travelling salesmen—the rubber merger has dispensed almost entirely with the jobber—and especially the great expansion of advertising and the use of brands and trade-marks and package-goods, concentrating demand, have enabled the manufacturer to dispense with the middleman's services or to make him an automatic transmitter of public demand ; the jobber still controls the sale of the cheaper grades of ready-made clothing, but the advertised brands are sold direct. In the retail trade itself, one of the most notable features has been the expansion of the department store, buying direct from the manufacturer or occasionally manufacturing for itself, and taking for its field not only its own city but the whole country, thanks to the expansion of business by catalogue and mail-order. Less extensive has been the development of chains of stores in different cities, economizing by large purchases and standardized products. The individual retailer has frequently succumbed to this double competition ; but, as a rule, the convenience of neighbourhood, personal vigilance, or specialization in the better lines of goods, have enabled him to hold his own. The methods of distribution are in as constant flux as the methods of production ; the channels of trade will follow the lines of greatest profit, whether or not the individual's profit means society's gain.

Foreign Investments

Canada's rapid development was made possible only by the co-operation of foreign capital and foreign enterprise with the faith and energy of her native sons. To Britain especially she was indebted for the millions needed, her borrowings running in recent years to an average of $150,000,000. It was chiefly to the purchase of federal, provincial, and municipal securities and of railroad bonds and shares that British credit was applied, though a substantial fraction was invested in industrial and mining and lumbering operations. Canada rapidly advanced to the foremost place among the countries into which Britain's surplus millions poured, though constant warnings were necessary to prevent reckless promoters killing the goose that laid the golden eggs, and Argentina in the latest years rapidly regained the leading place it once had held. Continental investment was on a smaller but expanding scale, France with its thrifty wealth leading the way, and Belgium and Germany following. United States investors bought few government or railway bonds; but the emigrants from the States brought the great bulk of the capital that came in with the settler, and United States capitalists invested with greater freedom in manufacturing, land, timber and mining enterprises. United States promoters established the Sault Ste Marie and Sydney steel and coal and power enterprises ; Southern British Columbia's mining wealth was at one time developed entirely from Spokane ; British Columbia timber limits are mainly in United States hands, and large investments have been made in eastern pulpwood areas as well as in pulp and paper mills ; land companies brought north the methods that had proved successful in the Western States ; and over two hundred branches of United States manufacturing companies were established in Canada, especially in Ontario, for production or distribution, comprising motor-cars, farm implements, cereals, elevators, carriages, condensed milk, cement, hardware, scales, typewriters, tobacco and scores of other products. Canadian and United States capitalists joined

hands in the asbestos, cement, rubber, explosives, paint and other mergers. An interesting tendency was the frequency with which the United States interests were bought out by their Canadian associates after a few years' co-operation, notably in the Dominion Steel and Coal and the Lake Superior and General Electric promotions. Meantime Canada in her turn began to take part in international financial dealings. Canadian banks had for years maintained branches in the United States and lent their surplus funds in Wall Street; now they dotted the West Indies with their branches. Canadian money, or rather Canadian enterprise, secured a remarkable place in the exploitation of the light and power traction opportunities of Latin America, especially in Brazil, Mexico and the West Indies. Canadian railroads built and bought and leased over seven thousand miles of road in the United States, more than one-fourth the extent of the whole Canadian railroad system

Wealth and Poverty

With the coming of a more complex industrial system and the rapid exploitation of the half-continent's virgin riches, the question of the distribution of wealth inevitably grew more acute than in the days of rural simplicity. Canada could still claim to be fortunate above most lands in her freedom from the gross inequalities of wealth and the deep-rooted antagonism between rich and poor which constitute the present world's most pressing problem. The freehold farm system, the absence of class privilege, education universal and free, if not always most wisely directed, the width and freshness of the new land's opportunity, ensured widespread prosperity. There was little poverty of the hopeless, degrading, Old World kind, though immigration and expanding industrialism created slums and housing problems in the larger cities before they were awake to the changing conditions. There was a growing measure of the poverty that still keeps up appearances, of the chronic difficulty caused by the rise of prices, and of a standard of living growing faster than incomes.

The widespread discussion of the higher cost of living during the later years of the period reflected public uneasiness as to the genuineness of the seemingly abounding prosperity. There were really two questions involved, not often clearly distinguished : the question of prices, or the relation between goods and gold, and the question of the balance between production and consumption, or the relation between goods and wants. The interaction of these factors worked notable social changes.

The first factor was the supply of gold and of the credit based on gold reserves. In the early nineties there began a tremendous and constantly accelerating increase in the world's annual output of gold, due to the discovery of new fields, of new methods of mining, and of improved metallurgical processes which made possible the treatment of hitherto refractory ores. The output in 1910 was more than three times as great as the output of twenty years earlier. As to goods in general, an estimate was more difficult to form, but there seemed ground for the conclusion that the increase in production had slackened. New lands were being opened up, but there was not the sudden expansion which in the seventies threw the harvests of the Mississippi basin on the markets of Europe ; invention was still busy, but not as markedly as before in labour-saving directions. War and armed peace and fire—burning every year in the United States what would make a solid row of buildings stretching from Boston to Chicago—wasted wealth increasingly. The hours of labour the world over were shortened, half-holidays and vacations became more general, and beyond a varying point production fell off to correspond. The drift to the cities robbed the farm of millions of hands. An excessive proportion of society's working forces was absorbed in middleman's activities. And, in the third place, while production halted, demand kept soaring. Democracy levelled tastes and heightened ambitions. Growing leisure meant, for the poor of soul, need for more expenditure on outward things. Education, travel, intercourse, the sway of fashion, the relative growth of cities, raised standards of living.

Without entering into a discussion of the vexed ' quantity theory ' of money, it may be taken as generally agreed that

the altered relations between gold and the credit based on gold, and goods, had much to do with the world-wide rise in prices which marked this period. After 1896 the rise was rapid and almost unbroken ; the index numbers prepared by the Dominion department of Labour showed that by 1912 the average wholesale prices of the most important commodities had risen nearly thirty per cent above the average from 1890 to 1900, and retail prices and rents had soared to still higher levels. This rise, as English railway strikes, French food riots, German socialist victories and United States urban discontent revealed, was not peculiar to Canada : under the price-equalizing influence of international exchange, all the leading countries shared in the increase, in fairly proportionate degree. Conceivably a rise in prices might produce no important social effect, other than to alter the relations of debtors and creditors under long-term contracts ; if all products and all service shared equally in the rise, it would matter little whether two counters or one were used to effect exchange. But, as a matter of fact, all members of our complex society have not shared equally. Wages have risen more slowly than prices, and salaries, largely fixed by custom, more slowly than the wages of manual labour. Manufacturers, buying labour and selling goods, farmers, financial interests which flourish in times of rising industrial activity, speculators in real estate, shared the exhilarating rise, and gave the tone and colour of prosperity to the period ; other classes gained by more steady employment, but lost in the distance their incomes would go.

Thus, as the result of the working of the one pair of factors, the gap between what the world wanted, its standards of living, and what it could procure in the shape of goods and services, always a wide one, grew wider. And at the same time, as the result of the working of the price factors, the great masses found themselves possessed of a smaller fraction of the total purchasing power of society, just when their appetites had been whetted. Hence discontent the world over.

Canada shared the discontent, but in comparatively small degree, since the whole nation was on a higher level of prosperity than most of its neighbours, and high and low meant different conditions than elsewhere. Yet inequality grew,

due rather to the more rapid enrichment of the few than to the impoverishment of the many; prosperity drove in a wedge between the well-to-do and the struggling. Montreal alone claimed seventy new millionaires in a decade. Where the millions corresponded to social service, where they were the fruit of daring pioneering in the opening up of new resources or the improvement of industrial processes, few grudged enterprise and energy their reward. But most men viewed with growing uneasiness the concentration of wealth in hands that had done little toward its making, and the domination of industrial and political life by small groups of allied financial and railway and industrial interests in the three or four larger cities. Financial buccaneers who made millions out of merging mills they had never seen; promoters of fraudulent mining companies; members of rings and mergers who held up the public for all the traffic would bear; the owners of bounty-fed or protected industries whose profits did not, contrary to programme, filter through to the common people below; holders of unregulated public service monopolies; speculators growing rich overnight by the increment of land values communally created, did more to bring all wealth, honest and dishonest, into disrepute than the muckraker and the socialist street orator could do in a century without their aid. There was in Canada comparatively little growth of doctrinaire socialism, though the mining regions east and west developed an aggressive movement and the socialist minority in trade union ranks grew stronger. The note of industrial life was still prevailingly, even aggressively, individualistic; the working-man who bought prairie subdivision lots in ten-dollar instalments differed more in success than in ideals from the promoter who netted his easy million in a merger. Increasingly the intervention of the state was invoked, but only to act as umpire, not to play the game. There was little disposition to abandon the system of private property and individual competition or to hamper honest capital, provided special privilege could be removed from its seat. The spirit of business competition was less ruthless than in the United States; and in no mood of vainglory, but in ample recognition of the

lesser temptations, it was possible to avoid some of the pitfalls into which the older nation had fallen, by developing the civic spirit it recently had displayed. Less demanded, but not less needed, was an abatement of the speculative fever, less engrossing preoccupation with corner lots and wheat crops; but unless the preacher and the teacher and the midnight stars worked conversion, that did not seem likely to come about until success in the task of exploiting the country's riches had brought leisure, or hard times had brought repentance and plain living and high thinking.

The Harvesting

After nearly fifty years of striving the Dominion had no need to fear the accounting. The two oceans had been linked in triple bands of steel. The waste places had been filled, and prosperity brought to the native-born and the swarming immigrants from oversea alike. The farmer had fought a good fight, against nature's caprice and market forces beyond his sway, and won. The miner and the lumberman had mapped out the New World's riches over wide areas, and had brought their development to a high pitch. The fisherman, if not always keeping pace, had yet a notable haul to show. The manufacturer had developed enterprise and energy in the effort to give Canada an all-round development. National unity had wonderfully grown. There had been failures, mistakes of policy, triumphs of selfish short-sightedness over a broad sense of the common weal. There was still many a gap in development, many an acre to till and shaft to sink, many a problem of uneven and too self-satisfied material prosperity wherewith to grapple. But the men of the past and the men of the present could look to the accomplishment in fullest confidence, trusting that the men of Canada's to-morrow will be no less courageous and no less self-sacrificing than the men who have helped to make Canada to-day the world's fairest land of promise.

O. D. Skelton

Prepared expressly for "Canada and its Provinces"

REFERENCE
Industrial Districts
Present Agricultural Lands
Lands likely to be opened up for Agriculture in the near future
Present Grazing Lands
Present Forest Lands
Fisheries
BAFFIN BAY
GREENLAND
DAVIS STRAIT
BAFFIN ISLAND
Fox Basin
Fox Channel
Fox Land
HUDSON STRAIT
HUDSON BAY
ATLANTIC OCEAN
LABRADOR
QUEBEC
ONTARIO
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD I.
Quebec
Montreal
OTTAWA
Toronto
Halifax
Boston
NEW YORK
Lake Superior
Lake Huron
Lake Ontario
Lake Erie
Lake Michigan
WISCONSIN
MICHIGAN
Hudson Bay
James Bay
Gulf of St Lawrence
Cabot Str.
Belle Isle Str.
Davis Str.
Foxe Basin
Foxe Channel
Hudson Str.
Ungava Bay
Labrador Coast
Newfoundland
Prince Edward I.
Cape Breton
Anticosti I.
Mingan Is.
Magdalen Is.
Gaspé
Chaleur B.
Baffin Island
Southampton Id.
Mansel I.
Belcher Is.
King George I.
Baker's Dozen Is.
Sleepers
Coats I.
Fisher Str.
Evans Str.
Salisbury I.
Nottingham I.
Mill I.
Gordon B.
Frobisher B.
Resolution I.
Cumberland Pen.
Cumberland Sd.
Merchant B.
Home B.
Cape Dyer
Cape Walsingham
Cape Mercy
Cape Hooper
Cape Kater
Cape Christian
Scott Inlet
Pond Inlet
Bylot I.
Cape Hay
Byam Martin
Prince Regent Inlet
Lancaster Sd.
Melville Pen.
Winter I.
Vansittart I.
Southampton
Coats I.
Melville
Prince of Wales
Somerset I.
Boothia Pen.
Committee B.
Fury and Hecla Str.
Repulse B.
Melville Pen.
Igloolik
Foxe Basin
Amadjuak
Nettilling L.
Cumberland Sd.
Loks Ld.
Frobisher B.
Resolution I.
Salisbury I.
Mill I.
Nottingham I.
Gordon B.
Fisher Str.
Evans Str.
Coats I.
Southampton Id.
Mansel I.
Kovik
Kingwa
Smith L.
Payne L.
Ottawa Is.
Portland Promontory
Leaf R.
Richmond Gulf
Richmond L.
Belcher Is.
King George I.
Baker's Dozen Is.
Sleepers
Bay
Minto L.
Seal L.
Clearwater L.
Tip Seal L.
Amskugamish L.
Great Whale R.
Cape Henrietta Maria
Cape Lookout
Long I.
Cape James
James Bay
Akimiski I.
Albany R.
Moose Factory
Rupert R.
Rupert Bay
Eastmain R.
Old Factory
Nichikun L.
Big R.
Kanaaupscow R.
Kanaaupscow
Ishmaston L.
Hamilton B.
Dyke L.
Labstuck L.
L. Mistikamau
Pritsikapau L.
Kanuimusau
Amskugamish L.
Kanuipiskau R.
Indian House
George R.
Kaniapiskau R.
Kaniapiskau
Kuujuaq
Payne L.
Kingwa
Kovik
Ungava Bay
Akpatok
Saglek B.
Hebron
Okkak
Nain
Mugford
Kuchuak
Kaumajet
Port Burwell
Cape Chidley
Cape Hopes Advance
Cape Wolstenholme
Hudson Str.
Lake Harbour
Lake Nettilling
Amadjuak
Loks Ld.
Frobisher B.
Resolution I.
Cape Dyer
Cape Walsingham
Cape Mercy
Cape Hooper
Cape Kater
Cape Christian
Scott Inlet
Pond Inlet
Bylot I.
Cape Hay
Byam Martin
Prince Regent Inlet
Lancaster Sd.
Melville Pen.
Igloolik
Foxe Basin
Amadjuak
Nettilling L.
Cumberland Sd.
Cumberland Pen.
Merchant B.
Home B

THE LABOUR MOVEMENT IN CANADA

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I

GENERAL ECONOMIC SURVEY: THE LABOUR FIELD

IN Canada, as everywhere, the labour movement has been determined by environment, especially political and economic environment. Canadian labour conditions have been, of course, affected by world movements ; still more do they reflect tendencies in the dominant political organization of the continent to which they belong. But they have at many points a strong individuality, and some of the most important problems of the Canadian working-man, both technical and in his organized class capacity, may be called unique. To grasp the underlying causes of these, it will be necessary to run over the main features of that general background of nature and history which imparts so much of its tone and colour to the phenomena to be dealt with.

Speaking very broadly, and in terms only of conditions since Confederation, two main groups of considerations must be distinguished in a survey of this kind. These are, first, the geographical situation, physical features and natural resources of the country ; and, second, the series of considerations arising out of the process of developing the country and the stage that has been reached in that process—considerations which group themselves chiefly about the fact that Canada is pre-eminently a nation in the making, and that her great problems are those contingent upon the entering into a vast inheritance of undeveloped natural wealth.

I. The outstanding characteristics of the country are its enormous extent and its northern position. Geographically,

Canada is a continent rather than a nation. From east to west it stretches for nearly four thousand miles, and for over half that distance from north to south. Its area is 3,500,000 square miles. This, in conjunction with the fact that it occupies the northern half of the North American continent, has an all-powerful bearing on the labour problem :

(*a*) In so far-flung an expanse it would be natural to expect more or less diverse conditions to occur, and in point of fact the Dominion is not economically the compact parallelogram of the map but a congeries of communities drawn out across the continent. A general division of these is into eastern and western, according as they lie relatively to the headwaters of Lake Superior ; but a more definitive classification takes count of four main groups : the first is the Maritime Provinces, which with Lower Quebec gives Canada her outlook upon the Atlantic and Europe ; the second is made up of the original provinces of the lower St Lawrence basin, industrially the most highly developed part of the Dominion ; the third embraces the wheat lands of the prairies ; while the fourth, British Columbia, includes the cordillera or great mountain belt of the West, representing the share of Canada in the Pacific slope. Each of these is separated from the other by formidable barriers. Foreign soil divides New Brunswick from immediate access to industrial Quebec ; 'the wilds of Lake Superior,' bridged only in part by water, separate Ontario from the prairies ; while between the latter and British Columbia tower the ramparts of the Rockies. Each division has distinctive resources and a distinctive industrial tone ; each has its own history ; each is by nature an economic entity. The labour problem is to a high degree individualized in each.

Though the provincial subdivisions of Canada were delimited by politics, the federal form of government might easily have been suggested by nature, and its bearing on the condition of labour may therefore be disposed of in this place. No problem of administration in Canada is more omnipresent than the defining of authority as between the federal and provincial legislatures. A recent observer declares provincialism the most effective force in Canadian public life. As the

provinces control much of what is called ' labour ' legislation, it results that the problems of the working-man may vary in some of their most vital aspects in recurring sections that are divided from each other only by an imaginary line.

(*b*) Canada's northern aspect gives her a characteristically rigorous climate, notwithstanding that Ontario has the latitude of Central Italy and British Columbia the warmth and humidity of Southern England. This has an important bearing on industry and labour, outdoor occupations changing entirely during the winter months, while several of the main channels of trade shift with the freezing of the St Lawrence and the Lake harbours. The snowfall, however, creates as well as hampers employment. To the course of the isothermal lines across Canada also it is due in the main that the initial development of the country has been thrown back upon its southern frontier, thereby accentuating the influence of the great neighbouring nation of the United States. Nova Scotia fronts upon New England ; Ontario is embraced by four states of the Union ; the western provinces of Canada are indistinguishable from the north-western states in industrial aim ; while British Columbia, as already stated, is an integral part of the Pacific slope. With similarity of race and language, it is natural that economic problems in the two countries should take on similar lines, and that the older and more powerful country should exercise on movements like that of organized labour an influence of the most far-reaching kind.

To Canada's northern position—that is, her aspect with regard to Europe and the facilities offered by the St Lawrence to the discoverer—she may also be said to owe the race problem as represented by the presence of the French in Quebec. The labour question has assumed forms in Quebec that can be explained only by racial character. Montreal, with a third more population than Toronto, has approximately only the same number of trade unions, and many of them are duplications due to difference in language. Strikes are probably less common in Quebec in proportion to industrial population than in any other part of the Dominion.

Summing up these statements, which together emphasize

the diversity of the labour situation in Canada, no better gauge is available than the level of wages. Other things being equal, the lowest rates are paid in the Maritime Provinces and in rural Quebec. They rise as one proceeds westwards to the more recently developed parts of the Dominion. East of the Great Lakes, Toronto and Hamilton show the highest level ; in both, however, wages are lower than in Winnipeg. But it is in British Columbia that the summit is reached, many of the smaller towns showing scales quite as high as the largest eastern cities. The eight-hour day, which exists for Ontario only in Toronto and scarcely at all in the Maritime Provinces, is the rule in British Columbia. Prices and cost of living show similar tendencies. These variations are largely, though of course not wholly, to be accounted for by geographical conditions.

II. The second series of considerations above referred to is, of course, contained in the first. The potential wealth of such a country is enormous. Russia, China and the United States alone have equal industrial areas. In the battle for economic supremacy now finally joined between the nations Canada is playing an increasingly important part.

The industrial history of the Dominion is in more than the usual sense a story of the conquest of nature. The fight in its initial stages was terrific. The very land occupied by the first settlers lay buried under forests ; the waterways that gave access to the heart of the continent were beset with rapids and falls ; and the enormous distances made land transportation impossible. It has required the expenditure of a sum equal, proportionately, to half the national debt of Great Britain to furnish Canada with the means of transportation. It is small wonder that progress was slow in joining together the communities which made up the original confederation and in providing the machinery necessary for expansion. This painful process has passed ; and the feature of recent years has been the rapidity of the development that has followed a full realization of the country's opportunities. Canada in the twentieth century is repeating the experience of the United States in the nineteenth.

At Confederation the four provinces had a population of

3,500,000, a few railways and canals, and a few factories. The immediate national problems were the joining of the Maritime Provinces by the Intercolonial Railway, the acquiring of Prince Edward Island, and the launching of a transcontinental railway beyond Lake Superior. All this and more was accomplished within twenty years. The number of provinces has swollen to nine with a population of seven and a half millions, while industrial development has advanced more than proportionately. Foreign trade has increased from $130,000,000 to over $1,000,000,000; foreign shipping from 13,000,000 tons to over 40,000,000 tons; coasting trade from 1,000,000 tons to 5,000,000 tons; railway mileage by ten times; railway traffic by twelve times; bank discounts from $45,000,000 to over $880,000,000; and bank deposits from $28,000,000 to over $1,000,000,000. Most important of all, perhaps, has been the birth of a national self-consciousness, and the attraction of capital for development purposes throughout the world. The more immediate effects on labour of all these events may be enumerated as follows:

(*a*) There has been a constant flow of immigration into the country. This has greatly increased since 1900. All immigration, of course, has not been so much added to the labour supply. Farm labourers and domestic servants are the only classes specifically encouraged by the government; nevertheless, immigrant labour has been an important factor in the general market for labour, notwithstanding that importation under contract is forbidden. To the labour body itself a heterogeneous and conglomerate tinge has been imparted. Where the immigration has included Orientals there has arisen what Canadian labour regards as a peculiar menace.

(*b*) On the other hand the rapid development has enormously increased the amount of employment available. Thousands of men have for years past found work in the construction of railways and the building of towns. This is not a permanent demand, though it is sometimes treated as if it were, and as if the wages fund distributable during a period of rapid investment was to be available indefinitely.

(*c*) The proximity of free land, free mining privileges, etc., provide for labour in Canada the boon of alternative employ-

ment. There has always been a ' new ' section of the country. To skilled tradesmen the practical benefits have been exaggerated, for the mechanic does not turn farmer. Industrial occupations are, of course, less sharply differentiated in a new country than in an old. Labour is less highly specialized, and frequent overlappings occur. Lumbering in Ontario and Quebec, the gathering of the western harvest, salmon-fishing in British Columbia, etc., draw upon a more or less floating supply of labour. The ' new country,' the ' West,' will of course disappear. There are slums, or the nuclei of slums, in Toronto and Montreal ; but from poverty as it is in the Old World Canada may as yet claim to be immune.

(*d*) The increase in general wealth has been accompanied, especially in these later days, as in the United States, by the evolution of class feeling and by greater cleavage between employer and employee. The patriarchal relationship which existed forty years ago between master and man in the small industrial enterprises which then dotted the country has tended to disappear with the centralization of industry and the increasing volume and organization of production. Trade unionism as a class weapon has appeared in Canada only within the past forty years.

With the above by way of general economic statement, a brief definition may be given of the more important industries in Canada, regarded primarily as fields for employment and as offering scope for the labour movement.

Agriculture.—The backbone of Canadian industry is agriculture. The industrial history of Canada is at the basis a story of the winning of the land for cultivation. Exaggeration has been rife as to the agricultural potentialities of the Dominion, induced doubtless by the largeness of the country as shown upon the map. But exaggeration is not needed. A conservative and easily grasped statement is that the farm-lands of Canada would fill a strip of country the width of France three thousand miles long. Within this field all forms of the industry flourish—mixed farming and dairying in Ontario and Quebec ; wheat-growing in the North-West ; cattle-raising on the ranges of Alberta ; fruit culture in the

Annapolis valley, the Niagara peninsula and British Columbia, with a broad tendency everywhere in the direction of mixed farming. Probably forty per cent of the population are engaged in agricultural occupations. The annual yield will reach a billion dollars in value. But the fact of importance here is that the 'labour' interest in this great field of enterprise—the dominating field in the Canadian industrial scheme—is but secondary. The industry is almost wholly in the hands of small working proprietors; eighty-seven per cent of the farmers of Canada own their own farms; and, though a large number of skilled farm labourers are employed, class consciousness among the latter can scarcely be said to exist. This is in marked contrast to the situation in Great Britain. Farming accordingly in Canada does not fall within the purview of the labour movement as in Europe, the far-reaching interest of the Dominion and provincial legislatures in the encouragement of the industry being almost wholly from the standpoint of the proprietors. In many ways the influence of the agricultural upon the general labour situation is great. One of the most marked features of recent years in Canada has been a prevailing scarcity of farm labour and a persistent movement of population, in older Canada at least, from the land into the cities. The free land of the West is, as already remarked, another factor of the greatest importance, though one that is rapidly diminishing as immigration fills the empty spaces. The feverish haste with which the harvest is gathered, especially in the West, where twenty thousand to twenty-five thousand men, collected from Eastern Canada, find a few weeks' work each year at high tension reflected in high rates of wages, is still another influence of far and wide effect upon the general labour market. The other side of the shield is the long cessation of work during the winter months for the trained labouring agriculturist. Yet, though not a part of the same whole, the relations of the farmers' organizations with those of the labouring classes are sympathetic; and in some directions, notably in connection with co-operation, the farmers have taken the lead in matters that elsewhere have received their chief impetus from the backing of labour.

Fishing.—Land in economic phrase includes the rivers

and the sea, and fishing is a great Canadian industry. The Canadian fisheries, again, are those of a continent. Fishing was the first industry systematically prosecuted in the New World. At the present time the North Sea and the Norway coast alone dispute supremacy with the waters of Eastern Canada, whether for the excellence or for the abundance and variety of their fish product. Over 5600 miles of coast-line form the basis of operations in this field alone ; the fishing grounds connected with them extend over 200,000 square miles—four-fifths of the fertile area of the American North Atlantic. The Great Lakes of the interior, a second great division of the Canadian fisheries, recklessly depleted though they have been, still yield a valuable food supply ; those of the Far West repeat the part played by the St Lawrence in the days of *l'ancien régime* and by the cod banks in the history of New England, in feeding the pioneer. The British Columbia salmon fisheries, like the lobster canneries of the east, are one of the unique industries of the world. It is only recently that the value of the other Pacific coastal fisheries and those of Hudson Bay is being realized. Altogether about ninety thousand men, with an investment of, say, $15,000,000 capital, follow the fishing industry in Canada, producing from twenty-six to thirty million dollars' worth of fish a year. But between the fisherman of Nova Scotia, either operating his own boat and gear, or plying his uncertain calling for a share of the catch—mingling agriculture, mining and lumbering with his employment between seasons —and the boatman of the Fraser River, a fisherman for a few weeks of the year, is so wide a gulf in everything that pertains to occupational conditions, that they can scarcely be reckoned members of the same class. As a class they are proprietary rather than employee, the manufacturing process being either domestic, as in the dried fish industry of the Maritime Provinces, or carried out by unorganized workmen, as in the canning industry of British Columbia. What such a metamorphosis as that which has swept the once numerous fishing villages of Great Britain into a few capital-controlled centres would mean for the general interests of labour in Canada is a question for the future.

The fur trade is often treated as a foot-note to the fisheries. Its place in early history is well known. To-day its function is to turn the enormous area of Northern Canada to economic use. Canada is the last great fur preserve of the world. It is of significance to note that fur garments may be purchased for less at Montreal than at Edmonton, the present Canadian entrepôt of the trade, and cheaper still in London, over six thousand miles from the trapper.

Lumbering.—Lumber is an increasingly important resource of Canada, the Dominion being one of the six countries of the world which will probably continue to produce more lumber than is sufficient for its own needs. For years the forest products of Canada came first on the list of exports, and they still rank second only to those of the farm. The pine and spruce forests of Nova Scotia and New Brunswick (which supplied the masts of the ships that fought at Camperdown and Trafalgar), of Quebec, Ontario and the prairie provinces, form the basis of an historic and picturesque industry, giving employment to many thousands of trained, and in some branches highly skilled workmen, especially in pulp and paper-making, still in its infancy. Largely French Canadian in race, the woodsmen, river-drivers and mill-men of the eastern provinces remain for the most part outside the organized labour movement, though strikes among the last mentioned have occurred, and isolated unions exist. That the work of the lumber camps is at its height during the winter, acts as a corrective of the general stoppage of employment incident to the Canadian season. In British Columbia, especially in the coast regions, the different conditions of climate and tree growth require other methods; logging is prosecuted in summer and with larger dependence upon machinery, and the mills run more continuously. Estimates of the extent of the Canadian forest lands range from 200,000,000 to 800,000,000 acres. The very magnitude of such interests will explain the tardy recognition of the importance of conservation and of the need of sound methods of forestry—important not only for the immediate interests concerned but for the effects upon water-powers and climate —and why also such incidents as the Miramichi fire of 1825,

and that which in the fifties ranged for hundreds of miles in Northern Ontario, are not more commonly ranked in the forefront of national disasters.

Mining.—Mining is carried on in all the provinces except Prince Edward Island, though it is of small importance in New Brunswick, and in Manitoba and Saskatchewan is limited to the mining of the soft bituminous coal or lignite which furnishes the local fuel supply. Of all the Canadian industries, mining has come to its full stature the latest. The gypsum quarries of New Brunswick and Nova Scotia ; the asbestos and mica fields of Quebec ; the Cobalt silver camp ; the iron beds of Northern Ontario ; the great nickel and copper mines of the Sudbury district ; the oil regions of South-Western Ontario and Alberta ; the various metalliferous camps, yielding gold, silver, lead, copper and zinc, of the interior of British Columbia and the Yukon—are the distinctive features in a rapid survey of the industry. Nearly all are worked by skilled and well-organized labour. The union has played a more prominent part in coal-mining than elsewhere ; and the eighteen thousand closely associated labourers who work the collieries of Nova Scotia have contributed some of the most interesting chapters to the history of labour organization in Canada. Not less highly organized, though with a different type of association, are the workmen in the coal-mines of Alberta and the Crow's Nest Pass, which supply the prairies with fuel and the mining camps with coke, and in the rich coal-fields of Vancouver Island, which feed the railways and other industries of the Pacific slope. Pig-iron to the amount of over 1,000,000 tons annually is smelted at Deseronto, Midland, Port Arthur, Hamilton, Sault Ste Marie and Sydney—the last three plants also turning out steel, from ores one-quarter of which are domestic and three-quarters foreign. Canada besides is prodigally endowed with clays, plasters, and other materials necessary for the development of a new country. In 1912 the value of mineral and smelted product passed $133,000,000. The number of men engaged was over sixty-five thousand, and their wages aggregated over $40,000,000.

Manufacturing.—The manufacturing industry is fre-

quently referred to as born of the protective tariff of 1878, which raised the scale of duties from an average of 17½ per cent to one of 28 per cent, and it is the case that the industrial classes were in the seventies less than half their present number, while the total value of manufactured products was less than one-third. These gains, however, have been largely of the past decade. The earlier history of the industry is full of striking incidents, such as the rise and fall of wooden ship-building in the Maritime Provinces, and the long career of the iron manufactures of Quebec, dating from the time of Frontenac. But the first ambition of the early Canadians was to be a prosperous agricultural people. The domestic system of manufacturing reached a high stage of perfection, and it gave ground slowly and late, in the struggle for complete industrial independence which created the modern industry. In its present proportions that industry represents a capitalization of $1,247,583,609, a pay-roll of $197,228,701 annually to 471,126 employees, and an annual product valued at $1,165,975,639. Approximately one-half of these totals may be set down to Ontario and nearly two-thirds of the rest to Quebec, though the tendency recently is westward.

An idea of the dominating characteristics of factory and shop employment in Canada may be gained from the following list, based on the census of 1911, which shows the various classes of establishments which employ over ten thousand work-people :

> Saw-mills, 72,776; foundries and machine shops, 24,367; fish-preserving establishments, 17,476; boot and shoe factories, 16,150; manufactories of lumber products, 15,637; cotton mills, 12,829; car-repairing shops, 20,753; men's ready-made clothing factories, 12,884; women's clothing factories, 10,519; iron and steel works, 10,344.

Closely associated with the future of Canada as a manufacturing country is the abundance of its water-power. The total available horse-power is estimated at 25,682,907. Of this only a fraction has been utilized, notwithstanding the important enterprises at Niagara, Shawinigan, Kakabeka and elsewhere.

Transportation.—Transportation plays a part so exceedingly important in the Canadian industrial system that it may be ranked with the primary occupations. It is significant that the largest single employer of labour in Canada should be a railway corporation. Significant, too, is it that a railway set the final seal to Confederation. At the present time Canada leads the world in the proportion of railway mileage to population, and the railway problem occupies a corresponding place in her internal and external economy. For the reasons, a glance, first, at the map, and secondly at the fiscal history of the country, which has decreed that traffic shall flow east and west, will suffice. Railway-building and general progress have been interchangeable terms in Canada. The process began with a line fifteen miles long between the St Lawrence and Lake Champlain, built in 1836, and designed to give an outlet to New York. It now includes . (1) the Intercolonial system, joining Halifax, St John and Charlottetown with Montreal and comprising 1720 miles of road, costing $100,000,000 ; (2) the Grand Trunk, a system of east and west transport through Ontario and Quebec, comprising 3600 miles ; (3) the Canadian Pacific, operating over 11,000 miles between the Atlantic and Pacific ; (4) the Canadian Northern, controlling 3700 miles, distributed from Cape Breton to Edmonton and now pushing through the Rockies to the western coast ; and (5) the Grand Trunk Pacific, now under construction from tide-water to tide-water, a distance of 3600 miles ; altogether a total of 26,000 miles, representing a paid-up capital approaching $1,500,000,000, to which the Dominion and the provinces have contributed about one-sixth. A Hudson Bay line also is now assured ; it will be 450 miles long, and will cost perhaps $20,000,000. The first locomotive was built in Canada in 1853 ; to-day there are in employment on Canadian railways over 4300 locomotives, a somewhat larger number of passenger cars, and 130,000 freight cars. The total gross earnings of this equipment in 1912 were $219,403,753, with gross operating expenses of $150,736,540, of which about sixty per cent was paid in wages to approximately 150,000 employees, the latter all, or nearly all, well organized. There are also fifty electric rail-

way systems in operation in Canada, capitalized at $95,000,000 and employing about 11,000 men.

Nor is this the only side of Canadian transportation. The magnificent waterways of the St Lawrence basin, the earliest gateway to the continent, still offer the shortest outlet to Europe, and the alternative of cheap transit over a distance of 2400 miles of the interior. In 1909 was celebrated the one-hundredth anniversary of the initial voyage of the *Accommodation* of Montreal, the first steamboat on the St Lawrence, two years the junior of Fulton's *Clermont* on the Hudson. Canadian steam shipping on the Lakes represents 800,000 tonnage. But the waterways no more than the railways have been a free boon to Canada. Engineering difficulties of the most formidable kind had to be conquered before the present fourteen-foot way was cleared from Lake Superior to the sea. The canals and kindred works of Canada have cost in the neighbourhood of $100,000,000, and more than as much again is yet to be spent. The Canadian winter produces its most far-reaching effect on general trade and employment when it closes these extended arteries of traffic. Superimposed on the internal transportation arrangements are steamship lines, owned extensively in Canada, which bring the country into direct and regular touch with Asia, Africa, Australia, the West Indies and Europe.

Construction.—From the fact that Canada is a nation in the making, it follows also that the construction trades still bulk largely in the general scheme of employment. Armies of men of the less skilled type are employed throughout the summer on railway construction and civic improvements, while labour in the building trades ranks high among skilled labours for favourable conditions of employment. In the 103 leading centres of Canada the total value of buildings constructed in 1911 was approximately $150,000,000.

Against this background—variegated, immense, rapidly changing—labour in Canada has evolved its problems. Although these in many cases are the problems familiar to the modern industrial system everywhere, in some others, as already said, they are indigenous to the soil. They have at

any rate this superlative interest that they illuminate some of the widest questions involved in Canadian nationhood. Especially is this true of the important relationships that exist between the Dominion and the two great leaders of the Anglo-Saxon race—Great Britain bound to the Dominion by the political and sentimental tie, the United States so powerful by economic position. It is the purpose of the following pages to give a history of the labour movement in Canada, understanding by that expression the organized effort of the working-class to obtain larger economic resources. 'Of the familiar problems of labour, trade unionism is far and away the most important. Broadly understood American trade unionism is the American labour problem; and, in a narrow acceptation, trade union policy and practice impinge at some point or other upon such specific social problems as immigration, child-labour, employers' liability, and methods of industrial remuneration.' [1]

II

HISTORY OF ORGANIZED LABOUR

THE history of organized labour and its aims in Canada is in the main the history of an outpost of the larger movements of the United States and Great Britain. The most striking features of the Canadian movement have been, in fact, the manner in which in the first instance its legislative ideals have taken their inspiration from the mother country, and in which, secondly, its working mechanism has been derived from that of the North American continent as a whole: for, even where it has stood aloof from the United States, it has been profoundly influenced and its destiny challenged if not directly determined thereby. Thus, the issue of the struggle against the law of conspiracy as applied to trade unions was fought out in England before it arose in Canada; on the other hand the issue as between the 'craft' and 'mixed' forms of organization was originally determined

[1] *Studies in American Trades Unionism*, edited by Hollander and Barnett.

in the United States, nine-tenths of the Canadian unions being affiliated with organizations having their headquarters in the republic, and the constitution of the most important central labour body in Canada to-day is chiefly interesting for the skilful way in which it adapts itself to the requirements imposed by internationalism. The study of the labour movement in Canada is therefore like the study of a bay into which the tides of ocean flow, but the currents and constituents of which may nevertheless have a high degree of interest both in themselves and for the larger subject.

Accepting the principle that trade unionism as an industrial and political force may be said to begin only with the coming together of previously existing societies to form a central body on a representative basis,[1] we may conveniently divide the history of the labour movement in Canada into three periods : first, the period of unconcerted action on the part of the organizations, which lasted up to the summoning of the first Canadian congress in 1873 ; second, the tentative period, during which the early attempt at centralization failed and a second body arose under other auspices ; and, third, the period, from 1886 up to the present, during which the existence of a central body has been uninterrupted, though some highly important modifications in form and spirit have been effected. This assumes that the most noteworthy attempts at centralization in Canada have been in the way of forming a mixed trades congress. As will be noted later, examples of central unions confined to particular crafts are not wanting, but with two or three exceptions they are unimportant.

It must be said at once that for the first period, and especially for the period prior to Confederation, no sure data are as yet available. The newness of the country and resulting mobility of the industrial population were against organization. What organizations arose were local and isolated. Working by themselves they could accomplish little. Not only employers but the general public were hostile. Consequently the early Canadian unions were inclined to secrecy ;

[1] The term 'trades union' originally indicated not a union in a trade, but a union of trade 'societies.'

few records were kept or, if kept, preserved ; and it is difficult therefore to speak with finality as to their proceedings or even existence.

It has been said, on what evidence is not clear, that several so-called 'labour circles' existed in Lower Canada prior to 1830. Certain it is that as early as 1827 an organization of printers in the city of Quebec took part in the regulation of wages, cared for its sick, and held musical and dramatic entertainments. There was a shoemakers' union in Montreal in the thirties, and a stonecutters' union in the forties, the latter having continued in one form or another until the present day. In Ontario the printers of York had an organization at the time of the incorporation of the town as the city of Toronto in 1834, and the shoemakers', coopers' and stonemasons' unions were but a little behind. It will be noted that in Canada, as in France, Italy, Germany and the United States, the lead in organizing was taken by printers. In the case of the United States the larger cities—New York, Philadelphia and Boston—saw the first unions ; so, too, in Canada the first attempts at organization were in the leading centres of population and industry, namely Toronto, Montreal and Quebec. The movement, however, prior to 1850 is negligible, for reasons that will be obvious. Land in the old provinces was plentiful, wants were simple, and the domestic system of manufacture largely prevailed. There was, moreover, none of that encouragement to organization which the English unionists received from the philosophic radicalism of the upper and educated classes of 1825-50. Canada accordingly lay beyond the influence of that fierce agitation which, beginning in 1824, swept, between 1830 and 1840, over England and the Northern States of the American Union, the product in the one of industrial and social revolution, and in the other of commercial and financial inflation, but taking on in both the same outward signs—the holding of national congresses, the enunciation of political platforms and the advocacy of various humanitarian reforms. Of the reaction also which followed in 1837, little effect was felt in Canada in the elementary organization of industry which then prevailed. Owen visited the United States in 1824,

but the socialism and Fourierism which were so dominant there until 1850 found no soil in which to flourish in Canada.

As time passed the number of labour organizations gradually increased. It is significant as indicating the overseas source of the inspiration that the ports were among the first to see vigorous unions.[1] Craftsmen from England brought with them the traditions of their trades and their loyalty to the unions of the mother country. The shipwrights and caulkers of Kingston, Ontario[2] (1848-50), of Victoria, British Columbia (1862), and of Halifax, Nova Scotia (1863); the sailmakers of Quebec (1858); and the longshoremen of St John, New Brunswick (1865), are examples. By 1860 also a few unions had arisen in the building and metal trades. There had been a successful strike of printers at Toronto in 1854, and of moulders and boot and shoemakers in the same city a few years later. But unionism prior to the sixties was still sporadic and of merely local influence. Not, in fact, until the up-growth of vigorous craft organization in the United States and their extension over the Canadian boundary may trade unionism be said to have been born in this country.

It is necessary at this point to distinguish the exact nature of the two influences which now began to act so potently on opinion in Canada. Broadly speaking, the machinery and outward form of organization were taken from the United States. From the position of legislative tutelage, however, which Canada from the first has borne to the mother country, now arose the cause in which Canadian labour thus united and equipped was to put forth its new-found strength.

In the movement for closer relations between the unions of Canada and the United States the printers again showed the way. The National Typographical Union had been organized in 1852. Ten years later the admission of Canadian lodges was mooted; the name became the International

[1] This may recall the Caulkers' Club of Boston, whose activities in 1720-30 originated the term 'caucus.'

[2] Kingston being at the time the centre of a considerable shipbuilding industry for the Great Lakes.

Typographical Union in 1869, Quebec, St John and Toronto unions being the earliest to affiliate.[1]

Apart from this adjustment of the machinery of organization, and apart from any special incentive to employ it, when the second great forward movement of the century appeared—that which in England followed the slow struggle of 1850-60, when labour produced its first leaders from the ranks and triumphed in the Royal Commission of 1867-69 and the repeal of the Combination Laws, and that which in the United States partook of the general momentum which followed the conclusion of the Civil War—the situation had greatly changed in Canada. The commercial prosperity which had prevailed during the period of reciprocity with the United States, the heavy immigration movement, the taking up of the vacant lands of the crown and the birth of the manufacturing industry, all combined to produce conditions which invited the working-classes of the newly confederated provinces, and especially of Ontario, to participation in the general forward programme. Trade unionism nowhere emerged in strength prior to the establishment of the factory system, the aggregation of workers in industrial centres, and the building of railways to cement the whole. These prerequisites Canada in the early seventies for the first time possessed. The first important contest began in the very year of the final recognition of English unionism ; and the leadership was supplied by the working-men of Toronto.

The story of the long and bitter struggle in Great Britain against the laws which made it a ' conspiracy ' for a body of workpeople to strike for the improvement of their conditions, may not be repeated here. But it must be recalled how the British acts of 1799 and 1800, following upon a long series of statutes dating from the reigns of Edward III and Elizabeth, had specifically prohibited all combinations of workmen obtaining an advance of wages or a decrease in hours ; how in 1824 a complete remission of these conditions was secured, only to be withdrawn in the next year by an act which,

[1] Toronto Typographical Union has been in continuous affiliation since 1869, but there is evidence that both St John and Quebec had established relations with the National Union earlier.

though it repealed the old laws, still refused in express terms to legalize trade unions ; how even the act of 1859 went no further than to make verbal alterations in the previous legislation, leaving trade unions unlawful, though no longer criminal, bodies ; and how in 1867 labour in England won its great vindication in the Report of the Royal Commission appointed after ten years of intense agitation. The Magna Charta of British trade unionism, by which labour organizations were legalized and their funds protected from process in a court of law, was accomplished at last in 1871 in the celebrated act ' respecting trade unions,' which declared that henceforth no trade union was to be illegal merely because it was ' in restraint of trade.' It is true that another act of that year, a criminal law amendment act, partially undid the effects of the first by a stringent clause providing punishment for certain conduct during strikes, and it was not until 1876 that the full liberties of the British trade unionists as then understood were secured. But the triumph in 1871 was great, and its effect immediate in the United States and Canada. The British Nine Hour League of the same year was an additional stimulus to American emulation.

Trade unionism till that period had been no factor in the public life of Canada, and was still without statutory recognition. Its first problem was to establish its own reasonableness. In 1870 opinion was less tolerant in Canada than in Great Britain. Even by the liberal statesmen and press of the day labour unions were considered as perversions, ' mere ebullitions of unfounded discontent,' whose aims were ' mischievous where not Utopian.' By employers they were regarded with an exasperation that came in time to consider itself as too long-suffering. The inevitable conflict soon followed. The Trades Assembly of Toronto began in 1871 a comprehensive campaign for shorter hours. In July 1872 the printers of Toronto went on strike for a nine-hour day. The strike continued for seventeen weeks. It had no more than begun when twenty-four of those who had peaceably gone out were arrested and thrown into jail on a charge of criminal conspiracy. The outcome was a *cause célèbre* which ended in the release of the prisoners, who were bound over to

appear at the next assizes. But the issue was won. In the interval a law ' respecting trade unions '—being almost word for word a copy of the imperial act of the previous year—repealing both on the civil and criminal sides the harsh measures previously in force, was hurriedly passed by parliament. British precedent, it may be observed, was the sole argument which secured its support, Sir John A. Macdonald as leader of the government basing his case for the bill on the contention that British mechanics coming to Canada should not, as a matter of policy, be subjected to restrictions from which they had been free at home. The same amendment of the Criminal Code, which had in England so detracted from the completeness of the concession, was passed into law in Canada. But for the moment this was not regarded. With the act of 1872 we may consider as closed the first period in the history of a united Canadian trade unionism, the period of its foundation.

The second or tentative period was that in which the spirit of organization developed and the first experiment in centralization was carried out. It was ushered in by an unprecedented activity in the formation of unions. A few strikes occurred. This stage passed, there followed the chief manifestation of the strength which the act of 1872 had brought to Canadian trade unionism—the bringing of the unions of the Dominion together into one representative assembly in September 1873. The date is a landmark in the history of Canadian labour. Toronto had struck the first blow for liberty of association : it was the Trades Council of Toronto, already a vigorous body, that now led the movement for a national assembly. Ottawa, where a printers' strike had been recently won and a strong Trades Council erected, played perhaps the second part, with Hamilton not far behind. The time was one of expansion in trade, of a growing national self-consciousness and of a dawning perception in the minds of the Canadian public of the value of the great North-West. The growth of the trade unions of the United States was at the moment very rapid. Several congresses had been held there in the preceding decade. An ' Industrial Congress ' had met at Cleveland only two months previously.

The action of the British unions in the previous year in calling a national congress furnished a further example.

When the Canadian convention met it was found that thirty-one unions had responded to the call, fourteen being from Toronto, five from Ottawa and four from Hamilton, while eleven others wrote to declare their sympathy. The result was the formation of the 'Canadian Labour Union.' The aims of the labour leaders of the day may be gathered from the subjects which the convention on opening allotted to special committees. They included hours of labour (the object being the obtaining of a nine-hour day with a Saturday half-holiday), the settlement of disputes by arbitration, the imposition of restrictions on imported and cheap labour and other legislation of a miscellaneous character, besides the perfecting of organization, the providing of ways and means and the framing of a constitution. Under the last head the convention decided that the union should be composed of delegates from the local organizations at the rate of one delegate for each hundred members, no union to be entitled to more than three delegates. Revenue was to be derived from an entrance fee of five dollars and a quarterly assessment of five cents per member. An important provision of the constitution defined the attitude of the union towards strikes as being, in brief, a policy of sympathy and pecuniary assistance in all cases wherein the labour interests had first endeavoured to submit the difficulty to settlement by compulsory arbitration. That labour at this period was content to leave its claims to compulsory arbitrations is a striking commentary on the reasonableness, or perhaps on the weakness, of the early movement. It is a policy which has all but disappeared in the strong unions of to-day. The representation of labour in parliament was another change strongly advocated by the convention. A vigorous policy of organization on craft lines, or into 'amalgamation' unions where craft unions were not feasible, was outlined. A resolution against the employment of convicts as other than unskilled labourers was passed. An official organ was adopted.

The organization thus launched was destined to no more than a brief and waning influence. With the panic of 1873

industry had fallen into a despondent and uncertain state; there was a widespread and bitter agitation in progress for various legislative reforms, which overshadowed the special claims of labour; and, though at least seventy unions were at the time in existence in Ontario, difficulty was experienced from the first in harnessing them to the car of the central body. At the second annual meeting, at which sixteen delegates attended, the fees were lowered, and the regulations as to the sending of delegates made more lenient. An attempt was also made to interest the unions of Montreal. In 1874 a labour candidate was elected for Ottawa in the provincial legislature—an example followed somewhat later by Hamilton, a success exactly coinciding with the election of two labour representatives to the parliament of Great Britain. All was of no avail, however, and after a third meeting in 1875, attended by fifteen delegates, the union disappeared from history.

Apart from its interest as the first attempt to secure trade union action in Canada, the only notable feature of the Canadian Labour Union is the degree to which it reflected the labour movement of the time in England and the United States. During the period of its existence an active campaign was being waged in Canada by more than one of the large American craft unions, and there was a strong desire in the United States that no check should be offered to the expansion of their system throughout the continent. Some resentment had, in the first instance, been felt by the Canadian unions that they had not been asked to share in the campaign for centralization which took place in the United States in the early seventies. An interesting light is thrown on this phase by an apologetic letter addressed to the president of the Canadian Labour Union at its first meeting by the president of the Industrial Congress of the United States. The exclusion of the Canadian unions, the letter explained, had not arisen through any feeling of hostility or indifference on the part of the American Congress, but from the fact that the proceedings of the Congress had to do wholly with legislation, and would therefore possess no interest for the subjects of a foreign power. The letter went on to point

out the desirability of association between the unions of the United States and Canada on a basis similar to the understanding then current between the iron-moulders of Great Britain and the United States. Nevertheless the Canadian Congress drew no direct support from the central international bodies, and indeed, as already remarked, its more important lines of action were decided by local conditions and by British precedent. This is particularly noticeable in its legislative programme. As above described, the criminal law amendment attached to the Trades Union Act of 1871 had left the final state of the law precisely as it was in England. Registration for the protection of union funds was impossible. Similarly under the Master and Servant Act of Ontario a breach of contract was still a criminal and not a civil offence. At all three meetings of the union an attempt was made to secure the repeal of these obnoxious conditions. Finally, after mass meetings held under the auspices of the Congress at Toronto, Hamilton, Ottawa and St Catharines, the government undertook to bring in a measure, and the union before its disbandment had this achievement to its credit, though it was not until 1876 that the cause of the unionists was finally won. In addition a mechanics' lien act had been passed in Ontario, and an enunciation made of several principles that were destined to produce results in time. On the whole the Canadian Labour Union had a vitality and independence that make its record pleasing. It defined the aims of labour in language that still requires but little modification, and, though it worked in leading strings, its position was consistently sound from a trade union standpoint. It can be said that its fortune was less than it deserved, seeing that it yielded in the end to no inherent weakness but to external forces that no policy at the time could have withstood.

It was not until 1883 that the Canadian trade unions found themselves strong enough to repeat the experiment of 1873-75. The outlook was now more promising. The intervening period had been in its first stages one of continuous stagnation and disruption. Even the trades assembly of Toronto had disappeared. Yet some important successes in the way of legislation had been achieved. On the other hand

a strike of locomotive engineers in 1876 had been followed by repressive measures. By 1880 the internationals, now grown powerful in the United States, began to throw themselves in ever-increasing numbers into Canada. The first Canadian assembly of the Knights of Labour, that once great and beneficent movement, dates from 1881. In the same year, under circumstances by no means fortuitous, an incident occurred which was fraught with important consequences for trade unionism in Canada. The International Typographical Union held its annual convention at Toronto. The immediate outcome was the reorganization of the Toronto Trades and Labour Council, which has since remained the most influential body of its kind in Canada, and the revival of the idea of a federation of the unions of the whole Dominion. Accordingly in December 1883 a congress, not unlike the union of 1873, was successfully launched. To encourage the movement every organization of one hundred members or less was entitled to two delegates, and those of two hundred and upward to one additional representative, no union to have more than three. Twenty-nine unions, of which eight were Knights of Labour assemblies, obeyed the call. After demanding legislation to prevent Chinese and pauper immigration and the granting of land subsidies, to give stipendiary magistrates summary jurisdiction in cases of non-payment of wages, and in favour of the arbitration of trade disputes, free secondary education, manhood suffrage, the lessening of the amount of property qualification, factories and steamboat inspection, and priority of claims for wages in insolvencies, it adjourned at the call of the Toronto Council. When, three years later, the congress again assembled, the number of delegates had risen to 109, and the organization was fixed on the permanent basis which it has maintained until the present. The years of experiment were over ; the Trades and Labour Congress had won its definite and permanent place as the guiding influence in the campaign of Canadian labour for improved conditions under the law.

It is not necessary to attempt any detailed account, from year to year since 1886, of the proceedings of the Congress, now grown into the ' Trades and Labour Congress of Canada.'

Some reference will be made later to its action from time to time as the most considerable mouthpiece of working-class opinion in Canada during the past quarter century. There is here space only for brief mention of those changes in composition and point of view which have left the Congress of to-day, though the inheritor of a continuous policy, so different from that of 1886.

As to material growth, the record has been one of consistent progress. The Congress of 1886 shrank to a meeting of 45 in 1887, and to one of 41 in 1888, but recovered to 86 in the Congress of 1890. The years immediately following 1890, however, were full of difficulties. Depression held sway over almost the entire industrial community. Attendance at the Congress reached its lowest ebb in 1895, when only 39 delegates, representing twenty-seven organizations, took part in its proceedings. From then on, however, the movement was upward. The Congress of 1900 was one of 79 delegates. By 1904 this number had increased to 130. There have been fluctuations since, but the Congress of 1912 was attended by 252 representatives, the largest number in its history.

A better index of growth is afforded by the number of unions in affiliation, the extent of their membership and the revenue which they contribute. In 1886 the Congress could reckon on the support of less than eighty organizations, whose total contributions did not reach $250. Even less strength was shown in the year following, and it was not till 1890 that the revenue of the Congress exceeded $500. From the beginning of the present century the record has been one of very marked and almost steady advance, the only general exception being in the year 1908-9, when the effect of the panic of the autumn of 1907 made itself felt. The totals to the credit of the Congress, however, had by that time become so large, relatively to the early years of struggle, and the decline has been so much more than effaced since, that the fact is scarcely worthy of mention. The following table will show at a glance how substantial in general effect has been the growth of the Congress in recent years:

Year	Place of Meeting	Number of Delegates in attendance	Number of Unions in affiliation	Membership of Unions in affiliation	Total Revenue
					$
1900 . .	Ottawa	70	...	...	912.00
1901 . .	Brantford	87	135	8,381	1,009.88
1902 . .	Berlin	102	212	13,465	2,342.41
1903 . .	Brockville	118	221	16,108	3,858.34
1904 . .	Montreal	130	321	22,010	3,747.96
1905 . .	Toronto	136	378	22,004	4,700.29
1906 . .	Victoria	92	448	27,676	5,747.40
1907 . .	Winnipeg	149	515	32,295	7,474.79
1908 . .	Halifax	91	628	40,728	8,906.44
1909 . .	Quebec	124	...	36,071	7,899.47
1910 . .	Fort William	158	945	51,000	9,482.34
1911 . .	Calgary	195	925	57,259	12,454.33
1912 . .	Guelph	252	957	66,128	15,699.79

In round numbers, it will be seen from the above, the Congress in the past ten years has multiplied the number of its affiliated unions by seven, its membership by an almost like amount, its revenue more than fivefold, while the attendance at its conventions has doubled, notwithstanding that in pursuing its policy of expansion over the whole Dominion it has held its meetings latterly in comparatively small western cities.

The progress made from the standpoint of the area over which the operations of the Congress have extended is worthy of special note. In 1886, 1887 and 1888 every union represented at the meetings was in Ontario. In 1889, however, the Congress crossed into Quebec, from which twenty-one of the eighty-three delegates of that year's convention were accredited. Quebec now received for the first time representation on the executive. In 1890 two delegates were present from Vancouver, but for many years British Columbia found a voice in the annual proceedings chiefly through the medium of extended reports from the Trades and Labour Councils of Vancouver and Victoria. Similarly it was not until 1897 that Manitoba obtained representation on the executive and presented a formal report, while the Maritime Provinces became directly interested for the first time in 1898. The Congress has now, in addition to its central committee for the whole, an executive for every province in the Dominion.

The most convincing indication, however, of growing strength is the completeness and efficiency with which the work of pressing for legislative reform is now organized among the several branches of the executive, and the thoroughness with which the programme is covered both in the Dominion and provincial legislatures. Once a year a formal interview is held with the Dominion government, when the views of labour are set forth in full detail. Similarly each provincial executive approaches the cabinet of its province and presents the requests of its unions for legislation or other executive action of a purely provincial character. Since 1906 the Congress has had a parliamentary solicitor, a large part of whose duties is to be in attendance during the sessions of the Dominion parliament for the furtherance of the interests of the Congress, and who is available in a general advisory capacity. In the early days the Congress leaned entirely upon its executive for the performance of this function, though the experiment of a special parliamentary committee was tried for a couple of years. In 1887 the Knights of Labour, then at the zenith of their influence, appointed a special legislative committee for Canada which worked in close accord with the Congress executive, and in effect performed the function of the Congress's special parliamentary committee. It included as one of its paid officials one of the best known of the leaders of the Congress. The arrangement, however, lasted only for a few years. Even more significant than this perfecting of its machinery for the presentation of demands for legislation has been the tendency of the Congress to take part in still wider movements in behalf of labour. Two examples will suffice. In 1908 an active campaign was undertaken against the over-supplying of the Canadian labour market with workmen from Great Britain. This involved the maintenance abroad for several months of a special agent, who endeavoured to insure that no skilled employees left for Canada under misapprehensions as to the existence of strikes or the general conditions of employment. Again, in the celebrated case of the Sheet Metal Workers' Union of Montreal, in combating an injunction brought as an aftermath of the Taff Vale decision, the Congress carried the case to the

Privy Council and won a decisive victory. Not less interesting is it to trace in the records of the Congress the gradual change in the tone of its deliberations, from the extreme radicalism of its early days, when it demanded the abolition of the office of governor-general, the reduction of the high commissioner's salary, and other loud-sounding changes, to concentration upon objects that lie closer to practical well-being.

Such incidents may show the unique position which the Congress occupies in being made up for the most part of unions which in their class affiliations are a part of organizations of an international character—having indeed in nearly all cases their headquarters and the great preponderance of their strength in a foreign country. Before analysing the form and nature which this relationship has taken and the modifications of structure it has produced, it will be interesting to recount a striking episode in the career of the Congress directly arising out of this internationalism, and illustrating perhaps better than any other series of circumstances the true relations of the Canadian labour movement to that of the continent as a whole.

In the history of continental trade unionism by far the greatest fact of the past thirty years, apart from the gigantic strides made by the craft unions, has been the rise of the American Federation of Labour and its struggle with, and final overthrow of, the Knights of Labour. Each of these great organizations set out on lines which were diametrically opposed almost from the beginning. The issue of their strife has affected trade union conditions in Canada no less profoundly than in the United States, creating the only open schism that has ever occurred in the ranks of the Canadian Congress—a schism which strikes at the root principle of internationalism, and the echoes of which are reverberating at the present time.

The Noble Order of the Knights of Labour was founded in 1869 in Philadelphia by Uriah Stephens; but its influence may be said to date from 1878, the year in which a convention of lodges was held at Reading, Pennsylvania, for the purpose of forming a 'General Assembly'—the experience of the

unions during the trade depression of the preceding years having shown the necessity of a strong inter-trade association. The alliance that was sought by the Knights of Labour was not one which aimed primarily to promote for the individual trade union the individual interest; it desired rather to create an amalgamation of the entire forces of labour in which the interest of the individual should be submerged in that of the whole. From the beginning it set its face against the most fixed principle in the whole traditional policy of trade unionism, namely, the principle of trade autonomy. The mixed assembly became its typical organization. Any one who was not a banker, a lawyer or a saloon-keeper could become a member of a Knights of Labour assembly. Every local assembly, no matter what its dominant trade complexion, was subordinate to the General Assembly, which had full and final jurisdiction in all matters pertaining thereto, whether the 'local' was composed of workmen of many trades or one. Its slogan was the essential brotherhood of man. 'That is the most perfect government,' ran its motto, 'in which a wrong done to one is the concern of all.' Never has a movement of the kind exhibited a more unique power of appealing to the masses. In fifteen years it numbered very nearly a million strong. A single year saw four hundred thousand members added. More powerful even than the strength of its numbers was the respect which it inspired. Indeed the very magnitude of its success was a part of its undoing; for the rapidity of its growth prevented that judicious laying of foundations without which permanence is impossible, and led to errors in policy which were discovered only when it was too late to amend them.

In Canada the order met with a success which was at the time unprecedented. There had been previous examples of American unions conducting vigorous campaigns in Canada, such as that of the Knights of St Crispin some six or eight years previously, when a large number of local unions were formed and district councils erected in Ontario and Quebec. The Knights of Labour, however, soon outdistanced these and similar efforts. It crossed into Canada with the formation of a local assembly at Hamilton in 1881, the year in

which the abolition of the secrecy of the order gave it its first great impetus. Powderly had recently taken charge. In a few years it had penetrated throughout Ontario and Quebec. The annual convention of the General Assembly was held at Hamilton in 1885. Never had a movement for organization in Canada been accompanied by greater enthusiasm than that of the period which followed. By 1888 there were six district assemblies in Ontario. The Toronto assembly received representatives from over forty local bodies. In the Province of Quebec the success was even more pronounced, the breadth of the organization allaying differences of race and creed. District assemblies soon arose both in Montreal and Quebec—mixed as to race at first, and separating later without rancour and for convenience of administration alone. Indeed it may be doubted, even with the substantial successes of the past few years in view, whether the labour movement in Montreal did not possess a greater solidarity during the years of the influence of the Knights of Labour than has existed since. How so powerful an ascendancy was lost almost as rapidly as it was gained is therefore one of the most interesting developments in the trade union history of Canada.

The American Federation of Labour came into being in 1881. Like the General Assembly of the Knights of Labour and the several congresses that arose and fell between 1865 and 1878, it aimed to supply a rallying-point for the interests of labour as a whole. It at first proclaimed no quarrel with the Knights of Labour. Knights of Labour local assemblies as well as trade unions were at first admitted to the confederacy, and the hope was expressly entertained that each type might maintain its own organization and work in harmony with the other. But in practice radical differences soon developed between the Federation and the General Assembly. The former held as its root principle that the mechanism through which the interest of all could best be developed was the craft union. The latter just as tenaciously clung to the view that the craft interest must be subordinate to the general interest of labour. It is true the federation recognized federal unions or mixed associations, but never

where the numbers would justify the formation of craft organizations. The Knights of Labour had 'National Trade Assemblies,' that is, assemblies which exercised autonomy over trade affairs. But these were always responsible to the General Assembly, whereas the responsibility of the same class of union to the American Federation of Labour was of a far less exacting nature—being in point of fact little more than a concession to the larger aims of labour. Serious conflicts had arisen as early as 1882, all traceable to the basic difference in organization principles already stated. Thus the first and perhaps the greatest contention raged about the question of 'dual organization.' The Knights of Labour national assemblies came into direct conflict with the national craft unions which made up the strength of the American Federation of Labour. Even the mixed assembly recruited workmen who, from the standpoint of the American Federation of Labour, should have been enrolled in their craft union. It will readily be seen that while conditions like these lasted the labour movement was a house divided against itself. From 1887, when the reaction toward organization by trades had fully set in, the Knights began to lose ground. The dual organization issue was declared in 1889. In 1894 the ultimatum of the Federation was launched: 'No meeting or conference with the Knights of Labour officials shall be held until they declare against dual organization in any one trade.' As such declaration would have divested the Knights of all trade authority, the battle went on. A bitter rivalry over the use of union labels was another result. The unfortunate outcome of certain experiments of the Knights of Labour in co-operative production, the entanglements which an incursion into politics nurtured, and the disastrous termination of its policy in favour of the general strike, told strongly for its rival, which, from 1895 on, rose rapidly into a position of commanding influence.

That Canada had been included from the first within the purview of the American Federation of Labour is apparent from the original title of that body which ran, 'The Federation of Organized Trades and Labour Unions of the United States and Canada.' But in the early years the Knights of

Labour were powerfully in the ascendant. At the Congress of 1883, it is true, of twenty-six organizations only eight were Knights of Labour ; but in 1886 no less than fifty-four of the sixty-nine organizations sending delegates were of the order. The same preponderance may be observed in the meetings of 1887, 1888 and 1889. After 1890, however, though there were several years in which the Knights outnumbered the unions, the tendency toward the opposite is plainly visible. The growth in the number of organizations which set in with 1898 in Canada was almost wholly among the craft unions.

And as the composition of the Congress varied, so did its policy change. At first it attempted to hold the balance even. It even essayed to play the peacemaker. Both in 1883 and 1886 the Congress passed resolutions deploring the breach between the Federation and the Knights. In resolving itself into a permanent organization it expressly threw open its membership to both. For several years the strictest neutrality was maintained. But by 1894, when the pendulum in the United States had swung decisively in favour of the craft union, the Congress definitely accepted the Federation as its model. In that year it put forward the claim that it should be allowed to issue charters, and the idea was only temporarily dropped, after having been brought forward at successive meetings, when it was seen to arouse the antagonism of the international craft unions. Meanwhile the sending of a fraternal delegate to the meetings of the Federation had been mooted, and in 1896 the Congress began to press demands that the *per capita* tax of the Canadian Internationals should be diverted from the Federation to its own treasury.

The final rupture between the rival parties within the Congress came in 1903, at the convention which met at Berlin, Ontario. Many incidents contributed to bring it about, but at the root lay the embittered antagonism of the organizers of the large craft unions—all holding influential places in the deliberations of the Congress—towards their rivals of the Knights of Labour. It would be impossible to deny that the Knights of Labour assemblies had become a

city of refuge for expelled and undesirable members of the unions, and that the unionists had grounds of complaint when through another organization they found these elements receiving equal status with themselves in the largest representative body in Canada. To prevent once and for all the evil of dual organization now became the object of this wing of the Congress. Other issues, of course, entered into the situation. In the West a blow was to be aimed at socialism. An amendment to the constitution was accordingly carried which excluded the order of the Knights of Labour and all other unions unconnected with the international movement from the Congress. Shortly afterwards the American Federation of Labour so far met the claims of the Trades Congress for the *per capita* tax of its Canadian International members as to grant the Congress $500 for the furtherance of its legislative programme, a symbol of the new and closer relations that had been established between the two bodies by the change of the Berlin convention—relations which are still in the melting-pot and may still involve no small part of the future of Canadian trade unionism.

The membership thus shouldered out of the Congress though small was by no means negligible. Thirty organizations were at once eliminated from the register, and the membership of the Congress decreased by 3340 and its revenue by $377. The rejected ones immediately organized on an independent footing, and the Congress which had met as one dispersed as two. The 'National Trades and Labour Congress,' as the new body was named, struck as its keynote the upbuilding of a purely Canadian trade union system, the Trades and Labour Congress having declared as a corollary of its protest against dual organization that it would accept no unions which were not affiliated with the international craft unions where such existed.

The new central body which took its origin in this way has continued to the present. Its first convention, following the Berlin meeting, was held at Quebec with some forty delegates. Since then conferences have taken place annually. The high-water mark in point of attendance was reached in 1905, when forty-four unions—including trades councils at

Quebec, Montreal and Ottawa—were directly represented. From the outset the new Congress unfurled the standard of nationalism as opposed to internationalism in trade union affiliations; but that its genesis fundamentally was a split in the International ranks is attested by the fact that it has always welcomed assemblies of the Knights of Labour, and that at its first convention it seriously discussed the advisability of admitting international unions in general. The latter project, however, was negatived, and with the decay of the Knights of Labour abroad they too have disappeared from the National Congress, leaving it, as its name implies, a rallying-place for purely Canadian unions. Quebec and Montreal, where in the early eighties the Knights had taken firmest root and where that once powerful organization was latest in disappearing, have contributed throughout the life of the Congress its chief support. Of charters granted during the first year of the Congress twenty were to unions in the Province of Quebec, seven to Ontario unions, and two to organizations in British Columbia. In 1906 some progress in New Brunswick was reported, and in 1907 the convention was held in Glace Bay (Nova Scotia), for the purpose of influencing the affiliation of the Provincial Workmen's Association of Nova Scotia, a purely Canadian organization, of honourable history and attainments, then entering for the second time in its career upon a life and death grapple with the invading forces of an international union. The Congress did not immediately attain its object, but in 1909 the Provincial Workmen's Association sent to it a fraternal delegate, and a year later entered into an arrangement of which the terms were not disclosed. Meanwhile the Congress had conducted negotiations with the Canadian Brotherhood of Railway Employees—a federation of railway unions numbering some thirty branches—and in 1908 assumed the name of the Canadian Federation of Labour. Its legislative propaganda has not differed in general character from that of the Trades and Labour Congress, though with a preponderating savour of Quebec. Like the larger body it has sought to organize its demands through provincial executives, and has presented them in formal interviews with the government. The origin of the

Congress being what it was, it is natural that its views have been at times opposed to those of the larger body. Where the latter has advocated tariff reduction the former has asked for tariff maintenance. Union label has been fought with union label. When the Internationals nominated a labour candidate in Montreal for the parliamentary election of 1908, the Nationals opposed him and were influential in securing his defeat.

Such has been the movement in Canada towards a central representative body for organized labour of all classes. There remains to note in this purely historical chapter the development of that other phase of the labour movement—that towards the formation of craft organizations within Canada. The craft unions of the United States were present from the beginning to meet the needs of Canada in this respect. They did not, however, completely occupy the field. The outstanding, though not the single, example to the contrary is afforded by the already mentioned Provincial Workmen's Association of Nova Scotia, an order indigenous to Canada, begotten of the soil, the successful existence of which until the present has been a victory not only over powerful local forces but over the principle of internationalism itself, twice met and overcome in a struggle of life and death.

In the spring of 1879 the Springhill Mining Company of Nova Scotia posted a notice throughout its works declaring a reduction of wages of about four cents a ton. A decrease in cutting rates had been made a short time previously, and the second announcement led to widespread dissatisfaction among the men, and ultimately to a strike. The dissatisfaction was all the greater as the price of coal was higher at the time than in several years before. The meeting at which the strikers organized was held in a wood by night, a short distance from the town of Springhill, Nova Scotia : the incidents recall the days of the combination laws in England. A committee of management was appointed and a plan of campaign agreed upon. In little over a week the company had offered to restore the former rates ; but the miners in the flush of their new-found strength demanded a further increase of three cents a ton, and eventually succeeded in obtaining it.

With the assumption of permanent form by the organization which arose in this way the Provincial Workmen's Association was brought to birth. The leading spirit was Robert Drummond, a former 'overground boss' of the company. The constitution and ritual which Drummond drew up having been approved by the original union, Pioneer Lodge No. 1 of the Provincial Miners' Association (as the organization was first called) was formally launched.

The new association from the outset found itself face to face with formidable difficulties. Local public opinion was adverse. Owners of halls refused to rent them for labour meetings. Organizers were roughly handled. The workmen themselves were timorous. To the call for the organization of the third lodge of the association only one man responded. A second call, however, brought forty, and a third over a hundred. But the first decided access of strength came from a strike which was successfully waged with the management of the Drummond colliery in 1880. As a result the association gained complete recognition for its committee throughout the Pictou coal-fields; there has since been but one strike of miners in that district. A second strike, also in 1880, involving the Acadia, Albion and Thornton mines, won a substantial increase in the standard wage.

It was in 1880 also that the association crossed into Cape Breton. There followed the Lingan strike, lasting a year and ending in a compromise. No break between capital and labour in the mining industry occurred again on the island until 1909.

For over seventeen years from these events the record of the association was one of steady progress. Several strikes took place with varying success, but the number of lodges grew continuously and the membership came to include almost the entire mining population of Nova Scotia. Then in 1897 came a disruption that all but completely overthrew the whole structure.

The difficulty arose in the first instance in Cape Breton. The cause was the much debated question of company stores and the attitude of the unions in combating them. Two lodges broke away and others were rent by faction. It was

held by the dissatisfied that the executive had not carried out the instructions of the Grand Council. The lodges of Pictou collapsed. In the end only one lodge on the mainland and two on the island remained in good standing. The administration fell into disorder. A leading officer became an organizer of the Knights of Labour, which order, from the beginning of the dispute, had invaded the field and had been active in organizing the seceders. Instead of presenting a solid front to the employers, the association found itself at war with a rival union of fellow-workmen. Halls of the Provincial Workmen's Association were seized by the newcomers and were recovered only after long and costly battles in the courts. For this the dwindling funds and increasing debt offered scanty means. The turning point, however, came in 1900, a thorough reorganization having been carried out in 1898. Among disturbing elements in the previous régime had been political dissension ; the association was now cut entirely adrift from politics. With the winning of its lawsuits new enthusiasm was enlisted. The association fought the Knights of Labour with their own weapons ; workmen of all classes and trades were brought in, and soon only a remnant of the Knights was left. In 1900 the first general advance in wages ever demanded by the association was obtained—a ten per cent increase for mine-workers above and below ground. Further substantial increases were gained in the following year. By 1903 over forty lodges had been formed, the list including quarrymen, railwaymen, steel-workers and retail clerks, as well as the miners who made, as before, the backbone of the association. A strike of steel-workers, however, in 1903, placed a severe strain upon the treasury, and convinced the council that an order so largely comprised of men of one occupation could not deal intelligently with miscellaneous craftsmen. The tendency has since been to limit membership to employees in and about coal-mines, the term including timbermen, carpenters and overground workmen generally as well as the miners themselves.

Such was the Provincial Workmen's Association when in 1909, with a membership of approximately ten thousand,

it had apparently settled down to a long enjoyment of the prestige and power obtained from so varied an experience. Its achievements had indeed been substantial. In addition to the advances in wages above referred to, the association had secured legislation fixing the age at which a boy may enter a mine, regulating the appointment of check-weighmen and deputy mine inspectors and establishing a mutual benefit fund. Co-operation had found more support in the ranks of the Provincial Workmen's Association than in perhaps any other body in Canada. Having arisen, as it were, spontaneously, and encountered its chief opponent in the Knights of Labour, the association was, up to this time, intensely self-contained and extremely suspicious of suggestions to join forces with other organizations. But its severest trial was now to come.

Early in January 1908 the Dominion Coal Company of Nova Scotia announced a new wages schedule which, while granting increased rates to some employees, involved a material reduction in the rates to others. The proposal was combated by the men, who demanded a general increase, all being members of the Provincial Workmen's Association. In the end the dispute was settled without a cessation of work, but there was a three months' period during which the possibility of a strike was brought sharply to the minds of the workmen. Now, the union well understood the serious fact that a strike of Dominion Company workmen would involve not less than eighty per cent of its membership. The negotiations with the company proved the beginning of a determined effort on the part of certain sections of the membership to provide against that drawback. Distant as the association was by nearly three thousand miles from any other Canadian coal-field in which to recruit its membership—if another organization had not been before it even there—its most natural remedy seemed to lie in international affiliation. The United Mine Workers of America, to which the dissatisfied turned, had a total membership of over a quarter of a million, with powers aggressive and defensive to correspond. The agitation for amalgamation, keenly debated some years before, was now renewed. The movement gained so much headway

that a meeting of the Grand Council was called in May 1908 to discuss it. Eight lodges had already declared for the affiliation, when it was decided by the council that a referendum vote of the whole order should be taken. The result showed a majority in favour of the proposed amalgamation. But the struggle was by no means over. At the regular annual meeting held in the following September the minutes of the May meeting were refused approval ; the referendum was declared illegal ; votes to revise the constitution and to divide the funds were defeated or ruled out of order ; and a resolution was passed defining the authority of the council over the lodges as paramount, and making the agitation for amalgamation a cause for the revoking or suspension of the charter of the lodge which countenanced it. This meant 'war to the knife.' The Mine Workers threw organizers into the field. Their original desire had been to accept the association as a body with its funds or not at all, and to erect the Maritime Provinces, in the event of union, into a separate district or local federation, as had already been done in Western Canada. But this was now set aside. Springhill lodge returned its Provincial Workmen's Association's charter and was accepted as a branch of the United Mine Workers in December 1908. Several other lodges followed. By the following year the Mine Workers considered themselves in a position to negotiate a scale with the Dominion Coal Company. But the company, though willing enough to recognize the Provincial Workmen's Association, absolutely refused to treat on the same basis with the international organization. In the strike which followed the United Mine Workers were decisively beaten, largely because of the adhesion of the Provincial Workmen's Association lodges to the company. But they still remain in the field and divide it with the Provincial Workmen's Association. Of such a contest—a powerful and highly organized international body opposed by an intensely conservative local union, Scottish in its antecedents, and backed by a record of beneficent achievements in legislation gained by a voting power of exceptional concentration and influence—it will be highly instructive to observe the issue.

Other attempts at the erection of Canadian craft unions may be more briefly noted.

In 1908 the Canadian Brotherhood of Railroad Employees was founded by an ex-international organizer. It exists as a ' mixed ' association, the bulk of the membership consisting of freight handlers and clerks. It has taken root chiefly at points along the line of the Intercolonial Railway, but is now extending westward.

An older national union was the Canadian Federation of Boot and Shoe Workers, which was founded in 1901, and which attained a strength of twelve unions between Montreal and Quebec. It has since been merged in the international movement.

The Federation of Textile Workers of Canada was founded in 1906 and rapidly organized some thirty unions in the various cotton-mills of Quebec, but has dwindled to a present strength of five or six lodges.

Another Canadian craft union working in harmony with the National Congress is the Canadian Granite Cutters' Union. A Toronto employer having refused to negotiate with the international union in this craft, the men withdrew and formed a purely local organization. Later they extended their operations into Quebec, but have never mustered more than four or five unions strong.

With the Trades and Labour Congress of Canada, on the other hand, have been affiliated at least two purely Canadian central organizations, admitted on the ground that no opportunity for affiliation with the international movement is open to them. These are the National Association of Marine Engineers of Canada and the Federated Association of Letter Carriers.

The former dates from 1900, though local societies had existed at Toronto and St John (New Brunswick) for several years before the idea of federation suggested itself. The isolation of distance and the absence of pressing interests in common delayed the movement for closer union, and it was not until 1899 that a committee from the two existing councils met in Toronto to discuss the question of amalgamation and enlargement. The committee reported favourably, and in

the following year a grand council was instituted at Montreal (January 11). Within another year the association had trebled its strength, having organized sub-councils at Montreal and Lévis (Quebec), and at Kingston and Collingwood (Ontario). By 1902 it had spread to the Pacific coast with branches at Vancouver and Victoria. Its aim is to obtain legislation that will elevate the trade. It has already secured important amendments to the Steamboat Inspection Act.

The Federated Association of Letter Carriers has its centre at Toronto and dates from 1901, having grown to about thirty branches. Three other central bodies—the Canadian Association of Masters and Mates, the Fishermen's Union of Nova Scotia and the Threshermen's Protective Association—scarcely fall within the category of labour organizations.

Of the progress of what may be termed the rank and file of trade unionism in Canada, a comprehensive record is hard to obtain. Before 1900 no attempt was made to collect statistics of growth or recession from year to year, and, though the records of the older international unions contain interesting data, they have never been systematically searched from the Canadian point of view. Mention has already been made of the rise and fall of the Knights of Labour in Canada and of other similar incidents in the international movement. But undoubtedly the most material accretion of strength which organized labour has to record in this country came with the marked prosperity and expansion which characterized general industry in Canada since the opening of the present century. Two years in particular within that period stand out as remarkable. In 1903 no fewer than 275 new organizations came into being in Canada, and even with current dissolutions the net gain was well over two hundred. Special efforts on the part of the American Federation of Labour and of the craft union organizers achieved this result. The second most notable year was 1907, when some 230 unions were formed and the net gain was probably 175. The most pronounced activity of the past decade has been in the building and transportation branches, though developments among miners have formed one of the most interesting chapters. Many other

features of this growth might be recorded, such as the pronounced gain of railway trackmen's organizations which took place in 1903-4, the heavy losses of the same in 1905 and their subsequent recovery. It is interesting also to analyse the record geographically. In 1903 nearly two-thirds of the net gain of the year occurred in Ontario and Quebec. From that time forward, however, growth has been relatively more rapid in the western provinces. The years 1904 and 1905, in fact, saw a loss in Ontario, a loss, however, which was checked in 1906 and not repeated since. In 1907, 1908 and 1909 the prairie provinces and British Columbia increased their quota of labour organizations to a degree unparalleled elsewhere. Summing up, it would probably be within the truth to say that the past ten years (1902-12) have witnessed a net gain of at least six hundred in the number of well-established Canadian unions. This by no means furnishes a complete gauge of the actual growth in strength of Canadian trade unionism. Previously existing unions have in the great majority of cases materially increased their membership and finances. More important even than growing numbers and money power has been the improvement in cohesion and morale, following better systems of jurisdiction and more enlightened counsels as to the basis of organization. In many cases, owing to the better understanding which now guides the movement as a whole, the very disappearance of an organization may be counted a gain, the members going into other bodies, and their disappearance as a separate entity marking an increase in solidarity rather than a loss of strength. Within Canada it would be safe to say that the labour organizations as a force for the improvement of conditions were seventy-five per cent stronger in 1912 than at the opening of the century.

To state and explain the exact present extent and nature of that force and the mechanism through which it works shall be the purpose of the following chapter.

III

PRESENT POSITION OF TRADE UNIONISM

IN Canada, as in Great Britain and the United States, the unit of trade union organization is the local union —usually the craft union, occasionally the 'mixed' or general union. This body may have various affiliations. In the first place, it is usually a member of the central union which exercises jurisdiction in the craft to which it belongs. Secondly, it may or may not be joined with neighbouring unions in related trades to form a federation for the purpose of dealing with questions that pertain to the trades in question as a craft group. Thirdly, it is in the larger centres associated, almost invariably, with a trades and labour council, which includes the other unions of the district and forms the local parliament of labour. Finally, it is in most cases either directly or indirectly represented in one or the other of the two trades and labour congresses of the Dominion, a summary account of which has been given in the preceding chapter.

Let us first note the number of the units of the trade union movement in Canada, that is, of local trade unions: (1) according to the locality, and (2) according to the industry or craft in which they occur.

All told, there were in 1911 some 1752 trade unions or other local organizations of workers in Canada.[1] The distribution of these in the several provinces of the Dominion is shown in the following:

Province	Number of Unions	Province	Number of Unions
Nova Scotia	146	Manitoba	104
Prince Edward Island	9	Saskatchewan	74
New Brunswick	79	Alberta	133
Quebec	276	British Columbia	225
Ontario	704	Yukon Territory	2
		Total	1752

[1] The statistics herein are based on the directory of labour organizations maintained in the department of Labour, Canada, as in May 1911.

It will be seen that Ontario with 704 labour organizations claims forty per cent of the total number of unions in Canada. British Columbia, however, with 225 unions, must be regarded as far more highly unionized in proportion to population, and in point of fact organized labour has nowhere in Canada put forth greater strength than in that province. Quebec with 276 unions is relatively less thoroughly organized than Ontario, or even than Nova Scotia with 146 unions, Manitoba with 104, Alberta with 133, or New Brunswick with 79. In comparisons of this kind, of course, the prevailing occupation of the people must be borne in mind, a precaution especially necessary in the case of the agricultural province of Saskatchewan, which has but 74 unions, or the fishing and agricultural province of Prince Edward Island, which has only 9 unions to a population of 93,700.

The larger cities are, as everywhere, the chief homes of the labour organizations. Montreal has 117 unions; Toronto (with two-thirds of the population of Montreal) only three or four less; Vancouver, 72; and Winnipeg, 69; these being the four cities which stand first in the list. Quebec and Ottawa follow with 50 each, Hamilton with 48, London and Calgary with 39 each, and Victoria (British Columbia) with 36. Of the 146 organizations in Nova Scotia, 28 are in Halifax and 12 in Sydney. In Prince Edward Island, 7 of the nine unions are in Charlottetown; while St John has 24 and Moncton 18 of the organizations credited to New Brunswick. In Saskatchewan, Saskatoon has 19 and Moose Jaw 16 unions. Lethbridge, in Alberta, has 29 unions and Edmonton 21. To those familiar with industrial and economic conditions in Canada the local significance of these statistics does not call for explanation.

A second interesting aspect of the labour organizations is that of their distribution by industries and trades and, what is much the same thing, their distribution according to their affiliation with central craft or industrial unions. And here at once emerges in full detail that broad division of the Canadian trade unions, of which mention has already been so prominently made, into those which are affiliated with unions having international jurisdiction, covering both

the United States and Canada, and those which are either members of purely Canadian central craft unions or are entirely local and self-contained. Of Canadian local unions 1520, or over eighty-five per cent, are members of international organizations, while only 232, or less than fifteen per cent, are in every sense native to the soil.

Taking up the latter or purely Canadian unions first, little remains to add to what has been said in the preceding chapter, unless to bring together their numbers in a table of recapitulation :

Union	Number of Branches
Provincial Workmen's Association	21
Canadian Brotherhood of Railway Employees	30
Federation of Textile Workers	6
Federation of Boot and Shoe Workers	5
Canadian Granite Cutters' Union	4
National Association of Marine Engineers	9
Federated Association of Letter Carriers	30
Canadian Association of Masters and Mates	4
Fishermen's Union of Nova Scotia	24
Total	133

This leaves something less than one hundred purely local and self-contained organizations.

The distribution of the Canadian unions by provinces is interesting. Quebec has 86, a little less than one-third of all the unions of the province. Nova Scotia, with the Provincial Workmen's Association and the Fishermen's Union, has 54, which makes up thirty-seven per cent of its total number of unions. Ontario has 50, about seven per cent of the whole. New Brunswick and British Columbia have 15 apiece, while Alberta has 6.

The great preponderance of the fighting strength of trade unionism in Canada, therefore, lies in the internationals. The largest number of labour organizations existing in any one occupational group in Canada is in the railway service, in which there are 447. In the building trades the number is 328 ; in the metal, engineering and shipbuilding trades, 235 ; in the printing and allied trades, 86 ; in the clothing

trades and in the mining industry, 77 each ; in the food and tobacco preparation trades, 50 ; under the heading of general transport, 44 ; among barbers, 31 ; and in the wood-working trades, 28. The strength of the individual organization, however, is of greater interest than these group statistics. This may be seen from the following detailed list of the international unions having over twenty-five chartered branches in Canada :

Union	Number of Branches in Canada
Brotherhood of Maintenance-of-Way Employees	119
United Brotherhood of Carpenters and Joiners	75
Brotherhood of Locomotive Firemen and Enginemen	73
Brotherhood of Railway Trainmen	72
Brotherhood of Locomotive Engineers	71
Bricklayers' and Masons' International Union	61
International Brotherhood of Machinists	48
International Typographical Union	47
Order of Railway Conductors	45
Brotherhood of Railway Carmen	45
United Mine Workers of America	43
Journeymen Tailors of America	38
Amalgamated Society of Carpenters and Joiners	36
Iron Moulders of North America	32
Journeymen Barbers' Union	31
United Association of Plumbers and Steamfitters	30
Journeymen Stonecutters' Association	30
Brotherhood of Boilermakers and Iron Shipbuilders	29
Brotherhood of Painters, Decorators and Paperhangers of America	27
International Brotherhood of Electrical Workers of America	26

As there are approximately 28,000 local branches under the jurisdiction of the international movement on the continent, the Canadian unions, on the basis of numbers, constitute somewhat less than five and a half per cent of the whole.

The total membership of the Canadian trade unions lies probably between 130,000 and 140,000. It will be seen that relatively to the entire wage-earning population of Canada the trade unionists amount to about six per cent. In Great

Britain the relative strength of organized labour is at least four times as great.

The next step upward in the general scheme of labour organization, after the local unions and their central craft associations, may be represented by the federations of unions in allied trades, which occupy a place midway between the individual unions and the local trades and labour councils. They deal largely with questions peculiar to groups of related trades, such as the grading of wages between allied crafts, the delimiting of trades, etc. They emerge into public notice chiefly when the arrangements of general wages schedules are under discussion, on which occasions they frequently take entire charge of the negotiations with the employers, as, for example, in connection with the fixing of wages in the building trades on May 1 of each year. Canada has forty-seven bodies of this character, of which almost exactly half (twenty-three) are building trades councils, eight are federations of metal trades, five of printing and allied trades, three of clothing trades, two each of employees in the mining industry, among commercial telegraphers, and in the railway service, and one each in the wood-working trades, among barbers, among public servants, and among general transport employees. Ontario has 20 of these federations, British Columbia 7, Quebec 6, Manitoba and Alberta 3 each, and Nova Scotia, New Brunswick and Saskatchewan 1 each. Five extend over several provinces.

We are now come to the trades and labour councils, or municipal parliaments of labour. These are most important bodies, especially under the American system of organization, where they have seldom or never encountered the hostility of the central craft unions as in England. In Canada, owing to their relation to the Trades Congress, they play an even larger part than in the United States. The historic place of the Trades and Labour Council of Toronto in the Canadian labour movement has already been mentioned. Purposely of loose organization, and supported by only a small *per capita* assessment, the trades council deals with matters of the widest interest, ranging from politics to disputes between rival unions. It is usually consulted before

a strike is declared. On account of its impersonal nature, it is the body which takes action in such matters as a violation of the Factories Act, the securing of a fair wage schedule, etc. It is the local rallying point for organization propagandism, its weight going against unaffiliated and other irregular or unrestrained forms of unionism. Broadly, the chief function of the trades council is educative, in bringing together the leaders of labour who would otherwise be absorbed in the aims of their several crafts.

The extent to which trades and labour councils, consisting in each case of representatives from organizations of different classes in the same locality, are in existence in the several provinces is shown in the following :

Province	Number
Nova Scotia	2
Prince Edward Island	1
New Brunswick	2
Quebec	6
Ontario	22
Manitoba	3
Alberta	4
Saskatchewan	3
British Columbia	7
Total	50

It will be seen that of a total of fifty councils, twenty-two are in Ontario, seven in British Columbia, six in Quebec, four in Alberta, and three each in Manitoba and Saskatchewan. Thirty-three of the trades and labour councils are affiliated with the Trades and Labour Congress of Canada, and two with the Canadian Federation of Labour. The others are without charter. Included in the thirty-three holding charters from the Trades and Labour Congress are ten which also hold charters from the American Federation of Labour.

In the matter of constitution each council is largely a law unto itself. The Toronto Trades and Labour Council attempted in 1903 a plan whereby the unions engaged in work of a common nature were formed into sectional councils meeting independently. The experiment, though it proved

abortive, is interesting as an attempt to meet the unwieldiness attaching to the trades councils of large cities, the Toronto council having over eighty unions affiliated, representing a total membership considerably in excess of ten thousand.

We may now approach the apex of the whole structure of Canadian trade unionism, namely, the two congresses, whose origin and career have already been outlined. They represent the final groupings of the union into representative national assemblies, and their organization and function require to be stated with some minuteness.

With regard to the Canadian Federation of Labour, which, as already explained, is made up of purely Canadian unions, little remains to say. It musters two trades councils, the three central craft unions above mentioned as being in different degrees of affiliation, and a few independent local unions. Its constitution offers little out of the common, beyond the features designed to secure nationalism previously noted. It can apparently claim to speak for about ten per cent of the rank and file of the Canadian local unions.

The Trades and Labour Congress of Canada, on the other hand, is not only the most powerful assembly of labour in the Dominion, but its constitution and composition, and its relations to the body of continental trade unionism as a whole, make it the most interesting feature in the Canadian labour movement.

It is well to note, in the first place, the precise aim which the Congress has set for itself in the way of securing support. That aim has been to enlist under its banner, if possible by direct affiliation, every trade union in Canada that is a member of the international movement, together with all federations, trades councils, etc., whose component parts are international. To these it would add such purely Canadian unions as may be, for one reason or another, incapable of affiliation with the internationals, such as the Federation of Letter Carriers, which is composed of government employees, the Canadian Association of Marine Engineers, whose activities are largely prescribed by Canadian law, etc. The first questions, then, are : To what extent, and how, has the Congress achieved this purpose ? Of how many of the

international unions of Canada has it succeeded in enlisting the support ? In what manner is that support accorded ?

The Trades and Labour Congress has encountered many difficulties in its attempt to secure the thorough-going adhesion of the Canadian internationals. The remarkable increase in affiliations and membership during the past ten years is not merely a reflection of the current growth in the number and strength of organizations to be attached, but a sign of the expanding influence of the Congress itself within the international movement. The expansion was secured by a notable change in general policy.

For many years the Congress relied for its support entirely upon a canvass of the individual organizations. But with its final alliance with the American Federation of Labour in the fight against dual organization, and with the growing efficiency of its work for legislative and other reforms, came an increasing perception that it might with justice appeal to a wider sentiment. The first recognition of this claim was the granting of $500 a year by the American Federation of Labour towards the furtherance of the legislative objects of the Congress. But this has never seemed to meet the situation. That situation is properly revealed in the demand more recently advanced by the Congress that, inasmuch as it exists for the benefit of all the international unions in Canada, it is entitled to the support of all, such support to be by an arrangement from the headquarters of each central craft union whereby that union enrols its Canadian members in the Congress in the same way that it already pledges all—Canadian and American alike—to the support of the American Federation of Labour. In other words, the central craft organizations have been asked to affiliate their Canadian branches with the Congress in a lump from headquarters instead of compelling the Congress to make good its case with the branches seriatim. Strenuous opposition to the idea was encountered at first, both from the central unions and from the American Federation of Labour. Latterly, however, the principle has proved victorious, and to its recognition must be attributed much of the recent growth of the Congress.

We may accordingly most clearly indicate the strength

of the Congress by noting in succession the different methods by which its constituent bodies obtain representation in it and the extent of the support involved in each case. These methods are three :

(*a*) There is, first, the method of affiliation from headquarters just described. From the last financial statement of the Congress it appears that thirty-four of the large international unions, represented by 741 local unions having a membership of 41,278 in Canada, now pay *per capita* amounting to $6884.20 directly from headquarters into the treasury of the Congress. This is the first source of the strength of the Congress.

(*b*) Next come some 150 additional local unions scattered thoughout the provinces, whose central bodies have not entered into the arrangement above outlined, but who have on the old basis, of their own individual volition, affiliated themselves directly with the Congress. The fund contributed in this way amounted in 1911 to $2741.55.

(*c*) The above unions, numbering 891 in all, represent the sum-total of those directly affiliated with the Congress. Seeing that there are over 1520 local international unions in Canada, this would appear to make the Congress representative of less than sixty per cent of the whole international trade union movement. But there remains another avenue by which the Congress is brought into touch with the local unions, namely, that of the trades and labour councils, thirty-three of which are chartered by the Congress and pay *per capita* on their membership. The latter consisting of representatives of all or nearly all the unions in the locality over which the council has jurisdiction, it follows that the Congress in this way reaches a considerable body of constituents. It is true that many of the unions represented on the councils are among those included in classes (*a*) and (*b*) above, but others are not, and though the nexus is slight between the Congress and a union which sends only one delegate to a trades council made up of many similar, and is through this means alone brought into touch with the proceedings of the larger body, still it is something. Probably two or three hundred additional unions have in this

way a voice, however indirectly, in the deliberations of the Congress.

There is, in fact, only one clearly defined group of internationals which inclines to stand aloof from the Congress as a matter of policy, namely, certain unions of employees on railways. As before noted, the railway service is among the most highly organized branches of Canadian labour. All told, there are 447 railway unions in Canada, in the forefront of which for strength stand the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Engineers, the Brotherhood of Railway Trainmen, each of over seventy unions, and the Brotherhood of Railroad Conductors and the Brotherhood of Railway Carmen, of forty-five unions each. International in their affiliation and thoroughly in sympathy with the general movement, they nevertheless hold no connection with the Trades and Labour Congress at headquarters, and in comparatively few cases through local unions. Even the trades and labour councils receive little support from the railway organizations, the most notable case to the contrary being the council of St Thomas, which for many years was maintained almost entirely by railway employees. At Winnipeg the Canadian Pacific Railway employees have organized a separate council affiliated with the Winnipeg Trades and Labour Council, while at Revelstoke (British Columbia) the council obtains the backing of the railway unions. That the attitude of these unions, however, should be what it is, has substantial reasons. In the first place, the very nature of the calling of the railway servants fosters separation. They stand away from local federations and from the American Federation of Labour in the United States likewise. Moreover, the leading railway unions are exceptionally well-to-do. They have been called, in the case of the conductors and engineers, the aristocrats of the labour movement. The Trades and Labour Congress could doubtless offer them assistance in obtaining legislation, but for services of this kind the railway unions feel that they can well afford to pay for themselves. In addition, they prefer to employ in the capacity of adviser on legislation one who has a technical knowledge of railroading,

and who will devote that knowledge and all his time to the interests of the employing union. Accordingly, four of these unions maintain at Ottawa parliamentary representatives working concurrently with, but independently of, the Trades Congress. And herein is thrown an interesting sidelight on the genius of American trade unionism. The organizations supporting independent representatives are the conductors, engineers, firemen and trainmen, being, it will be observed, the classes chiefly engaged in the running of trains, and incidentally the strongest financially of the railway unions. The Maintenance-of-Way Employees, on the other hand, though the most powerful from the standpoint of number of organizations (they muster 119 unions throughout the Dominion), are comparatively weak financially, their unions being scattered and individually of small membership. We find them accordingly in close affiliation with the Trades Congress, they and the telegraphers alone of the railway unions being in the list of organizations whose entire membership is paid for from headquarters in accordance with the arrangement explained under (*a*) above.

Summing up, it may be said that the Trades and Labour Congress speaks at present for perhaps 1200 of the international unions, and that the remainder (with the exception of the Industrial Workers of the World and the Knights of Labour, both weak in Canada and both rejected as fostering dual organization) stand aloof rather from apathy than from any active hostility to the aims of the Congress.

Such being the composition of the Congress, what are its functions ? What is its general purpose ? And what further problems, if any, are inherent in the attempt to achieve that purpose ?

Broadly, it may be answered, the general purpose of the Congress is to act as the mouthpiece of the international unions on all matters that are distinctively Canadian and are properly within the province of a representative body similarly constituted, more particularly in the way of safeguarding the legislative interests of the unions, which, from the fact that their headquarters are in another country, they are unable through their own central organizations, or

through the American Federation of Labour, conveniently to accomplish.

But this, it will be surmised, involves a most intimate as well as intricate relationship, not only between the Congress and the various continental craft unions, but also and especially between the Congress and the American Federation of Labour. For it means that to a certain extent at least the Congress assumes to play for Canada the rôle that is played in the United States, and for the international movement as a whole, by the American Federation of Labour—an attempt involving difficulties not only of working machinery but of the adjustment of function between the Canadian body and the larger leader. Even from what has already been sketched, it will have been apparent that the position of the Congress is not fixed—that it has been proceeding, in fact, from a lower to a higher stage in the general scheme of internationalism. What stage has it reached ? Is it daughter or sister to the American Federation of Labour ? Or is the relationship one that still defies such clear-cut analogy ?

To grasp the situation fully we must constantly bear in mind that the Federation is designed to represent the international movement as a whole, and that the activities of the Congress are to be regarded therefore as to a degree superimposed on those of the larger body. Accordingly, the Federation is made up on entirely different lines from those of the Congress. Local international unions have not the privilege of sending delegates to the Federation as they have to the Congress, but representation is arranged through the headquarters of the central craft unions and is according to total membership. The number of delegates to which each of the central craft unions is entitled in the Federation is periodically fixed, and the unions elect their representatives by a referendum vote of the members. The Canadian as well as the American members are included in this vote, and are thus represented on the same footing as others in the American Federation of Labour. The nearest parallel would be found in the various federations of international organizations which exist in several States of the union under the ægis of the Federation, which are made up, like the Dominion

Congress, of representatives from local unions, and which, like the Congress, exercise most of their functions in the furtherance of labour legislation within their particular fields. On this basis, therefore, the relation of the Congress towards the American Federation of Labour is that of a subordinate.

This impression is strengthened by a review of the functions which the American Federation of Labour performs for the continental movement as a whole, and in which the Congress does not share. For example, the Federation is supreme in Canada, as in the United States, on all questions relating to trade autonomy, this clearly being a matter of arrangement between the central craft unions, and one on which a division of authority is inadmissible. Again, the Federation has extensive, though loosely defined, powers with regard to the conducting of strikes, and its sanction of any large movement affecting the relations of employer and employee in almost any craft is highly conducive to a successful issue. This is a kind of action that is completely eschewed by the Congress. By general consent also the Federation is regarded as the chief moving influence in the extension of organization, even the craft unions depending upon it—though less now than formerly—to further their interests in new fields. The Congress, on the other hand, will deal with nobody that is not in sympathy with the cardinal principles of the American Federation of Labour.

Yet it would be a mistake to regard the Congress as a subordinate of the Federation in the same way that the State federations are subordinate. This is recognized in many ways, both by the Federation and by the central craft unions. The grant of $500 a year and the whole principle and practice of affiliating the unions from headquarters with the Congress are a frank admission that the field of Canadian legislation is one which the Federation and the central councils alike cannot enter, but must yield entirely to the Canadian body. No such grant is made, and no such principle recognized, in the case of any state federation, because both the craft unions and the Federation are there on native ground. Again, the Congress often receives the support of bodies which stand apart from the American Federation of Labour, such as a few local unions

of the Brotherhood of Locomotive Engineers and other unions not represented in the American Federation of Labour. Still further recognition of the special place of the Congress lies in the fact that at a recent session of the Federation it was formally arranged that the central craft unions, apart from their representation on the Congress through their Canadian local unions, were entitled to one delegate each from headquarters—a decided approach to the way in which the Federation itself is constituted out of the craft organizations. Again, it is now admitted by the American Federation of Labour that the Congress and not the Federation is the natural body to grant charters to trades councils in Canada, and that the latter are to be affiliated with the Federation only when they expressly desire it. Moreover, the Congress is in the way itself of becoming the mother of a series of sub-federations after the model of the State bodies above mentioned. The international unions of British Columbia in 1908 erected a provincial federation, and the example is meant to be followed elsewhere.

Nevertheless the relations of the Federation and the Congress are somewhat loose and indefinite. The grant of $500 is purely arbitrary. It is not logically consistent that the *per capita* tax which the international unions pay from headquarters into the Congress on their Canadian membership should be assessed against the whole body—in the United States and Canada alike—especially as the rate is one and a half per cent for the Congress and only one-half per cent for the American Federation of Labour, the larger sum being needed by the Congress because of the limited population and limited number of contributory unions. It is conceivable, therefore, that the United States members of such a union might one day ask why they should be taxed, to however limited an extent, to support a body which exists for the Canadians only, and that the Canadians in turn might ask why their contribution should be the same as that of the United States members to the American Federation of Labour when they derive less from it. The answer, of course, is that common-sense and not exact calculations of the *quid pro quo* in every item of expenditure must rule in such

matters. There is so much to be gained by all parties from cohesion that the arrangement of such details is of minor importance.

Meanwhile the fact that nine-tenths of the unions in almost every industrial calling in Canada are governed from a foreign country exposes them to a peculiar but very natural kind of attack in Canada. We have seen how the door of faction within the ranks of labour itself was opened on this score. Much more formidable is a difficulty which frequently arises in the working out of the system. Serious trouble between a local union and an employer is in the majority of instances a matter with which the officers of the union at headquarters are called upon to deal. Thus a Canadian employer whose workmen are disaffected must perforce discuss the details of the disaffection, and incidentally of his business, with a foreign labour leader, for, though in several cases the high officials of the unions—in a few cases the very highest—are Canadians, this naturally is the exception where the Canadian membership constitutes so small a proportion of the whole. This easily leads to friction, and indeed to genuine alarm and misunderstanding—to say nothing of natural prejudices. The 'foreign labour boss' is in fact one of the features of his union which the Canadian has oftenest to defend. So sympathetic a friend of labour and of continentalism as Goldwin Smith declared the business of the representatives of the international unions to be 'industrial war,' and bade them begone out of Canada. Even graver, because specific, charges have been made. A ruinous strike of longshoremen at Montreal in 1903 was openly declared to have been inspired by the stevedores of the rival ports of Boston and New York, acting through employees affiliated with the unionists of Montreal. The determined opposition of the Dominion Coal Company sprang really from a fear that its rivals of Pennsylvania might work through the unions of the Federation to its disadvantage. It is true that no such charges were ever proved, and that the opposition of the employers could be accounted for on other grounds. The epithets of 'Yankee walking delegate' and 'American labour boss' have often been employed in a manner rather strategic than candid. Yet the

irritation is certainly genuine and the antipathy deep-rooted. Prejudice apart, moreover, it is difficult to deny that a foreigner in command may make conflicts reckless and be less careful than Canadians of Canadian interests. The following incident gives a good example of the way in which the situation is regarded.

In 1903 a bill was introduced into the Canadian Senate which proposed to make it a criminal offence for any one not a British subject to incite or induce workmen by any act or means to leave their employment or to go on strike. This was to forbid the Canadian international unions to make use of their central organization when they most needed it. Eighty per cent of the Canadian unions would have been left in the position of an army without leaders. Naturally their opposition was of the most vigorous character. In the discussion of the bill in committee the representatives of the unions pointed out, in the first place, that the duties of an officer of a large trade union are not framed solely for the making of war. He cannot 'order' a strike, as he is so commonly accused of doing; he can only 'sanction' one already decided upon by the local union. Since he is responsible to the central treasury, to which a strike is a serious matter, his inclination is to refuse sanction. He knows that an officer who has frequent strikes in his district writes his own dismissal. So true is this, that many of the large employers prefer to treat with the central officers rather than with those of the local union. On the other hand, it is a not infrequent suspicion among the unions of the smaller cities that they are ill-supported from headquarters—a feeling which has this much foundation, that it is the chief aim of the central body to capture the large centres of population, the great majority of which are in the United States. Secondly, and with still greater force as an argument *ad rem*, the unions pointed out that such a bill would endanger the immense beneficiary funds contributed by Canadians to the international organizations, and that their enforced withdrawal, if possible at all, would entail gross injustice. Finally, it was adduced as a *tu quoque* that notwithstanding the inherent tendency of employers to stand apart, which is perhaps as strong as the

tendency of workmen to join together, some of the largest manufacturing companies in Canada are members of international associations of employers, such as the United Typothetae of America and the International Metal Trades Association.

But in general the bill of 1903 was regarded by the labour leaders simply as an attempt to draw a herring across the trail. Certainly the most of the support which it received was in the way of criticism of trade unionism at large rather than criticism of its international character in Canada. In the end the bill passed the Senate, but was defeated in the House of Commons. Shorter shrift was given to an even more stringent measure in 1907, which would have made it a criminal offence for an international officer to interfere in any way in an industrial dispute in Canada.

It will be clear, however, that the advantages of international affiliations are bought at a certain price. Nevertheless their attractions may easily be thought irresistible. The resources of an established and powerful movement are placed in a mass at the disposal of Canadians ; there are offered in return for enlistment such tangible considerations as large strike funds, cheap insurance, out-of-work pay, sick and old age benefits, the financing of which is possible only to a union of large membership. The international travelling card alone offers an inducement of great weight to the Canadian workmen, who have the reputation of doing well in the United States. Undoubtedly the chances against a successful strike in Canada would be increased were the floating population of workmen in the United States available as strike-breakers. In brief, the Canadian unions feel that the similarity between the two countries in language and in social, economic and industrial conditions makes affiliation so natural that it may be regarded as necessary : that they are, in short, the weaker vessels in the common stream. A concrete and typical case may be cited. The International Typographical Union has 700 unions and a membership of over 50,000 in the United States. It has won the eight-hour day from the Atlantic to the Pacific. In addition to strike, mortuary and benefit funds of the most ample proportions, it has a large sanatorium

at Colorado Springs for the treatment of its sick and infirm. Clearly, such would be beyond the reach of the forty printers' unions scattered throughout Canada, which together do not reckon more than 3500 members. On the other hand, a Canadian patient for the sanatorium was recently turned back by an over-zealous immigration officer at the boundary, and before an explanation from headquarters could be procured had grown too weak to proceed. It was the first case of its kind, and it will probably be the last.

Some light is thrown on the general problem of continental trade unionism by the difficulties of the English, Scottish and Irish unions in achieving amalgamation within the British Isles, difficulties which for a time separated the two first mentioned as by a wall, and in the case of Ireland were overcome, after total failure of an initial attempt, only with the influx of Scottish and English workmen which followed the development of Belfast. To-day Ireland has a separate trades congress, though no distinctive function with regard to legislation is exercised. This cleavage, if cleavage it may be called, would appear simply to reflect the fact that the English, Scottish and Irish unions were of separate growth, with ideas and methods in many cases dissimilar. Where the desire for a larger organization was strong enough, a union has been gradually effected. The experience of the international movement in America is therefore not surprising. Of racial differences there are certainly none more powerful than those of English and Scottish or Scottish and Irish. Even the French nationalism of Quebec was overcome by the broad fraternalism which characterized the early stages of the American movement. French articles were for a long time regularly published by the Knights of Labour in their official journal, for the benefit primarily of Quebec. It remains true, of course, that many differences exist between Canada and the United States, and even in the aims and methods of labour itself. The powerful and corrupt labour boss is a curse from which Canada thus far has been free. Industrial battles are, as a rule, fought with less violence in Canada than in the United States. Class distinctions founded on wealth are less pronounced in the Dominion than in the republic. Yet,

on the other hand, many of the factors which are most important in shaping the character of the labour movement are practically the same in the two countries. There are the same flux and expansion of the industrial population, resulting in the same preponderance of the non-unionist, the same contempt of co-operation and of the value of union benefits. In any event, the experience of the Canadian labour unions has been that an intermingling of relations as between Canada and the United States meets with no more outside opposition than an intermingling between Canada and Great Britain. Forty years ago the agents of English trade unions were subjected to the same attacks in Canada as those of the American internationals to-day, the Toronto *Globe* accusing them of an attempt 'to transfer to this country where there is no distinction of classes the caste feeling and jealousies of the mother country.' It is significant of the present situation that, where the English unions have extended their jurisdiction to Canada, they have done so through an office in the United States.

Are we then to regard the internationalism which at present rules as a final type in Canadian trade unionism? The answer depends on politics as well as on economics. But it is interesting to note the temper of the Congress itself on the subject. Several years ago, Ralph Smith, ex-M.P., the then president of the Congress, referred in his annual address to some stirring in the Canadian bosom towards a national trade union system. A scheme of international craft unions, with separate Canadian and United States federations working with each other in special cases, but independent otherwise, was outlined. That, however, was before the later arrangements between the Congress and the American Federation of Labour had taken effect. The Congress has advanced a long way since in its progress towards definite and higher status within the international movement. At the present time it is concentrating all its efforts in the attempt to secure the direct adherence of every international trade union in Canada. When this is accomplished, it may be expected that some of the indefiniteness which still characterizes its position will pass away. At the same time, present

arrangements are fairly satisfactory in practice. The exact position of the Congress and the exact situation of the Canadian unions in the general international scheme are not regarded as ' problems,' in the sense of difficulties demanding radical change or that will not yield to treatment when the time is ripe. Other matters sufficiently occupy the minds of the labour leaders in Canada. The obtaining and enforcement of the collective bargain under conditions at best unfavourable to organization ; the controlling of immigration, as one of the most vital influences upon the labour market in a new and expanding community ; the multifarious political and legislative activities of a country which has ten law-making assemblies in session annually : these and similar questions are the chief cares of the Canadian trade unionist.

IV

LABOUR LEGISLATION IN CANADA

UNDER the British North America Act legislation with regard to civil rights is assigned to the provincial legislatures. To the Dominion parliament, on the other hand, is given power to enact laws for the peace, order and good government of Canada ; for the regulation of trade and commerce ; for the taking of the census and the compilation of statistics ; and with regard to naturalization and aliens. The criminal law falls also within the purview of the Dominion. Concurrent powers are granted in the matter of agriculture and immigration, that is, the provincial law holds good where it is not repugnant to Dominion legislation.

From even this much it will be seen that the line which marks off Dominion and provincial jurisdiction on a subject so indefinite as legislation affecting the welfare of the working classes is not sharply drawn. As a generalization, however, it will be obvious that although such important problems as the securing of industrial peace, the preventing of conspiracy, intimidation and boycotting, the excluding of undesirable aliens, etc., fall within the power of the Dominion parliament,

the main body of what is commonly known as the labour laws of the country are of provincial origin. Such are the Factories Acts, Mines Acts, Workmen's Compensation Acts and the various acts which regulate contracts between employers and employees. In the rise and development of the factory system of industry in the older provinces, and of the mining industry there and elsewhere, are to be found the conditions which created most of the labour legislation now in effect in Canada.

From this fact, namely, that legislative authority in Canada is many and not one, it may be inferred that the state of labour under the law differs in different provinces. This is inevitable from the diverse nature of Canadian industry and the different stages of industrial growth reached in different sections. Thus in Ontario and Quebec, which are the most important of the manufacturing provinces, we find the most rigorously enforced policy with regard to factory legislation. The Provinces of Nova Scotia, Alberta and British Columbia have the most stringent legislation respecting employment in mines, though Ontario and Quebec follow closely. Prince Edward Island has little or no labour legislation except as to the terms of the labour contract. The new Province of Saskatchewan has only begun to legislate on behalf of labour. Newness of development, however, does not in Canada imply tentativeness of effort. In the West, especially in British Columbia, legislation is of the most recent and 'advanced' type from labour's point of view. It should incidentally be kept in mind that the statute law of Quebec proceeds, roughly, upon the Ordinances of France and the Code Napoléon, whereas in the other provinces it is based upon the common law of England.

Still another preliminary generalization is that labour legislation in Canada is largely modelled upon that of Great Britain. Only to a comparatively insignificant degree has such legislation been inspired from other sources. England has been the pioneer in most departments of labour legislation; where she has not, Canada has been slow to follow other guidance. The political connection of Canada with Great Britain would seem to exert a more powerful

influence than even the close tie which binds the trade union system of Canada with that of the United States. It is implied in this that the entire plan of Canadian labour legislation is based, as in England, not on any final theory as to individual liberty or the relation of the state to labour, but on the principle of applying palliatives for apparent and remediable abuses. Recognizing individual initiative and energy as the conditions of both individual and national progress, the law aims merely to impose restriction where the exercise of such initiative and energy interferes with the inherent rights of others. Proceeding from the fundamental fact that labour, though bought and sold, is not a commodity in the ordinary sense of the term, inasmuch as its purchase and sale involve in the most intimate way the welfare of a human being, the comprehensive body of legislation which is now on the statute-book of nearly every civilized community marks the overthrow of the economic doctrine of *laissez-faire* as applied to labour, a doctrine which minimized or abolished the distinction between labour and other commodities, and left the condition of the labourer to be determined almost wholly by competition and the law of supply and demand.

First, in regard to the labour legislation which has been enacted by the Dominion parliament : reference has been made to the act of 1872 respecting the legalizing of trade unions, and the amendment of 1876 to the Criminal Code with regard to conspiracy and intimidation. Taken together, they constitute, as in Great Britain, the Magna Charta of trade unionism. It remains only to point out the effect in Canada of the serious shock which the principle safeguarded by that legislation received from the famous Taff Vale decision of 1901.

On the whole these effects were not far-reaching. Three important cases were decided under the immediate influence of the Taff Vale judgment—which, it will be remembered, declared a trade union liable in its corporate capacity to be sued for damages for wrongful acts committed by its officers or agents. A miners' union at Rossland (British Columbia) was fined $12,500 for acts of intimidation during a strike ; payment, however, was evaded by dissolution. A more noted

case, begun in 1902 and not laid at rest until six years after, was that brought by the Metallic Roofing Company of Toronto against the local Sheet Metal Workers' Association for damages through picketing and boycotting. A judgment of $7500 was obtained, but, on the case being taken after intermediate steps to the Privy Council, a new trial was ordered on the ground that a resolution to strike, followed by a strike, was not unlawful. The parties subsequently settled their differences out of court. At Winnipeg, local plumbers' and mechanics' unions were restrained from picketing, and the former mulcted in a fine of $2000. On an execution being issued, however, nothing was realized; the chattel property of the union was not of sufficient importance to justify the appointment of a receiver; and a final decision held that dues and assessments owing to the union were not recoverable by action. The law passed in Great Britain in 1906 to meet the whole case has not been repeated in Canada, but to all intents the present situation in the Dominion does not differ in its practical bearings from that in the mother country.

Labour legislation of the Dominion, beyond these fundamental measures, is of recent date. A royal commission on labour was appointed in 1886 and made an exhaustive examination of conditions, but little or no legislation followed. An act declaring the first Monday in September 'Labour Day' and a public holiday was passed in 1894, after similar action in the United States. In 1897 the enactment by the United States of an Alien Labour Law, by which it was forbidden to bring a workman into that country under contract, provoked similar legislation in Canada. The Canadian Alien Labour Act was purely retaliatory, being directed only against such countries as have similar legislation against Canada; it was at first administered by the government, but an amendment in 1901 made it possible for an individual to bring suit in the local courts.

But the adoption of a comprehensive policy with regard to labour on the part of the Dominion government may be said to date from 1900, when an act modelled on the Conciliation Act of Great Britain and providing for the establish-

ment of a department of Labour became law. The act for the first time set up machinery for the settlement of trade disputes ; it also inaugurated the systematic compilation of labour statistics by the publication of a monthly *Labour Gazette*, as well as a government department specifically charged to deal with labour problems.

The evolution of the Dominion's policy of intervention for the settlement of trade disputes is perhaps the most interesting chapter in the whole subject of Canadian labour legislation. The Conciliation Act, as already stated, was nothing new. It provided, on the model of the British act, that the good offices of the department should be lent, on the request by employer or employee or on the department's initiative, for the settlement of any labour dispute. Arbitration may be resorted to under the act, but only by the consent of both parties. The act was thus voluntary. It enabled much useful action to be taken by the department in the interest of industrial peace, but its success was due rather to departmental energy than to popular interest or to amplitude of the powers it conveyed. This inadequacy of the legislation when confronted with certain acute phases of Canadian industrial unrest undoubtedly suggested the Railway Labour Disputes Act of 1903, which introduced an important new principle. Canadian industry depends to an exceptional degree upon transportation. Any interruption to railway or water traffic invariably causes a widespread displacement of business. It was accordingly provided that where a strike or lock-out affecting the employees of railway companies existed or was threatened, the matter in dispute should be referred for investigation to a board of three, representing both parties of the dispute, with a chairman either mutually agreed upon or, failing such agreement, appointed by the department of Labour. Strikes were not forbidden, but at least it was ensured that in this important field of industry no cessation of work could occur without the public being fully advised as to the matter in dispute. The Railway Labour Disputes Act of 1903 has been called into operation only on two or three occasions, and its importance consists largely in the fact that it was the precursor of the most interesting and

original legislation of the kind that has been passed in Canada, namely, the Industrial Disputes Investigation Act of 1907. The outstanding feature of this act is that it introduced the prohibitive clause which was lacking in the Railway Labour Disputes Act, and distinctly forbade a strike or lock-out until the matter had been submitted for the report of a board of mediation and investigation similar to that of the earlier measure. At the same time the scope of the legislation was enlarged so as to apply to all disputes affecting public utilities interference with which would cause inconvenience on a large scale. Disputes in other fields might also be brought under it if both parties so desired. The act greatly amplified and elaborated the machinery provided by the measure of 1903. It has been invoked in over a hundred cases, in the great majority of which settlements have followed. It has provoked general interest and discussion, and has been imitated in several states of the American Union, as well as in British South Africa. Its essence, as will be seen, is the compulsory suspension of hostilities pending investigation. As to the attitude of opinion in Canada, more particularly the opinion of labour, towards the more drastic expedient of compulsory arbitration, suffice it to say that prior to the enactment into law of the Railway Labour Disputes Act a draft bill providing for this method was submitted for consideration, when the labour organizations, and especially the railway organizations, declared themselves entirely opposed to it.

Modelled on the Industrial Disputes Investigation Act of 1907 is an act for the investigation of the operation of combines in restraint of trade, passed in 1910. Up to the present it has been appealed to only once.

The Dominion parliament has also during the past ten years extensively enlarged its legislation with regard to immigration, the general effect being to impose much more rigid examination tests, as regards the physical condition of immigrants, before admission to the country. The law and regulations thereunder deal with such subjects as the establishment of immigration offices, the protection of immigrants and immigrant children, and immigration aid societies. During periods of seasonal dulness no immigrant is now

permitted to enter Canada who has not work already secured or enough money in his possession to prevent his becoming a public charge until he secures employment. On the motion of the Dominion government also in 1906 an imperial act respecting false representations to induce or deter emigration to Canada from Great Britain was obtained. On Chinese immigrants a poll-tax of $500 is levied, the rate having been raised from $100 in 1903, after a report by a royal commission. Japanese immigrants are excluded by understanding with the government of Japan. Hindu immigration is similarly discouraged. The representations of labour bodies are chiefly, if not alone, responsible for this attitude on the part of the government towards oriental immigration.

The extensive public undertakings, in the way chiefly of railway construction, on which the Dominion has in recent years been launched, led in 1900 to the passing of an act respecting the preservation of the health of employees on public works carried on in remote and uninhabited regions. An officer of the Public Health branch of the department of Agriculture enforces the act. In similar spirit the Fair Wages Resolution of the House of Commons, 1900, guarantees to all workmen engaged on Dominion work the fair or current rate of wages of the district in which they are employed. The department of Labour is charged with the enforcement of the resolution, in accordance with the tenor of which schedules prepared by officers of the department are inserted in all government contracts. Similar precautions are taken against the sweating system in establishments in which government clothing contracts are executed.

Thus far, it will be seen, the legislation of the Dominion has applied to labour in a broad sense, without reference to civil rights or to contingencies arising out of particular classes of employment—both of which it has left the provinces to deal with. Of the latter kind of legislation, however, that, namely, which aims to protect the workmen from conditions directly arising from his occupation, there are at least two important examples in the Dominion statute law—legislation for the protection of railway employees and legislation for the protection of employees on ships. The grounds of

Dominion action in these cases will be plain : both occupations are to a large extent inter-provincial in their scope and call for the intervention of a common authority.

Practically all Canadian legislation for the protection of employees on vessels, whether sea-going ships or craft plying on inland waters, has been enacted by the Dominion parliament. The peculiar dangers to which seamen are exposed, both afloat and ashore, are provided for in the same acts which secure the protection of the travelling public and of the cargoes of vessels. Roughly, the legislation affecting seamen may be divided under three heads : (1) that declaring the rights and duties of seamen ; (2) that dealing with the safety of ships (including acts for the inspection of steamboats and the examination and licensing of engineers); and (3) that relating to the competency of officers in charge of ships. Legislation for the protection of employees on railways may be divided into (1) general provisions for the enactment and enforcement of by-laws, rules and regulations for the operation of railways and the guidance of employees ; (2) special rules of this nature ; (3) regulations for the inspection of railways ; and (4) provisions relating to construction, materials and apparatus. The Board of Railway Commissioners for the Dominion must receive immediate notice of all accidents to employees.

Still another Dominion act which may be classed with labour legislation is the Lord's Day Act of 1906, aimed to minimize the amount of Sunday labour. It is left subject to adoption by the provinces.

In the legislation of the provinces in behalf of labour there has been no little duplication of the Dominion enactments on subjects on which concurrent legislation is authorized under the British North America Act. This is particularly the case in the older provinces, especially Ontario. The Dominion Conciliation Act, the Public Works Health Act and many provisions of the Immigration and Railway Acts have been adopted almost verbatim in Ontario. Quebec and Nova Scotia have likewise taken independent action in assisting in the placing of settlers on the land, and especially in the securing of an adequate supply of farm labour, of which for

some years past there has been universal dearth in Canada. Quebec also has legislation for the purpose of assisting in the settlement of trade disputes. Ontario, Quebec and Nova Scotia have erected statistical bureaux, which have to some extent fulfilled for these provinces the functions which the department of Labour fulfils for the Dominion as a whole. The fair wages policy is practically repeated in all the provinces except Prince Edward Island; over forty municipalities have also adopted it. It may be said of all such legislation, however, that except where it has some special and local bearing it is much less vigorously enforced than is the similar legislation of the Dominion, and that as a rule the provinces depend upon the Dominion to deal with such phases of the labour problem as fall within its jurisdiction.

The more immediate concern of provincial legislation is with the protection of the civil rights of the working-man and of his person under the circumstances of his particular occupation. Such, in the first instance, are the various acts which regulate the general relations of master and servant and define the parties to the labour contract; such also are the special guarantees in which the statutes abound for the payment of the wages of labour. Again, inasmuch as the contract to labour involves practically the selling of the labourer himself during working hours, the necessity for legislation for the protection of the safety, health and comfort of the workman while at work is met by Factories and Shops acts, acts for the protection of employees in mines, in the building trades, etc.; the object of such legislation being to safeguard the working-man from bodily injury by the machinery and appliances with which he must work, from ill-health resulting from the surroundings in which his work is carried on, and from mental and moral contamination as well. Finally, as an outgrowth of this last-mentioned class of legislation, 'employers' liability' or 'workmen's compensation' emerges. Legislation like the Factories and Mines acts is, of course, essentially preventive. Its object is to prescribe, as fully as possible, the conditions which will prevent or minimize the occurrence of accidents, disease and moral deterioration among working-men in connection with

their employment. A further step, however, is possible whereby, in addition to positive regulations designed to prevent accidents, the law may deal with the situation which arises when in spite of such regulation an accident actually occurs, and may impose upon employers the obligation under such circumstances of rendering compensation to the injured employee.

It is beyond the scope of the present chapter to undertake any detailed review of such legislation in the different Canadian provinces, and the following is no more than the briefest enumeration of the more important acts which have been passed under the three headings referred to.

First as to the question who the parties to labour contracts may be, an extensive body of legislation with regard to apprentices, minors, immigrants and aliens exists in all the provinces. As to the rights appertaining to, and the duties devolving upon, the parties to a labour contract, the several provinces have similarly enacted master and servant acts, which deal upon a more or less uniform basis with such subjects as the duration of labour contracts, the obligations of servants and masters, wrongful dismissal, non-payment of wages, etc.

The last-mentioned subject, the general obligations imposed on masters respecting the payment of wages, leads naturally to a consideration of specific enactments safeguarding wages in cases of assignments, executions, the winding up of estates, holding directors of companies liable, and generally under circumstances and conditions which are litigious in character. Ontario and New Brunswick have special statutes dealing with the subject, and the statutes of the other provinces contain references thereto under the several Assignment Acts, Execution Acts, Companies' Acts, Railway Acts, etc. The general effect is to give priority to claims for wages. There are also a number of important enactments in certain of the provinces relating respectively to the protection of wage-earners on public works or works subsidized by public moneys; the payment of wages in truck or in kind; deduction from wages; exemption from garnishee—all alike framed for the protection of the wage-

earner. Quebec and Manitoba have special enactments with respect to the protection of builders' and contractors' workmen. British Columbia and Nova Scotia alone have Truck Acts.

Still another step for the protection of wages is represented by Mechanics' Lien Acts, comprehensive examples of which are to be found in the statutes of all the provinces. Ontario's act dates from 1873. Briefly the aim of these is to grant to workmen engaged in certain classes of employment a specific claim, in addition to the rights and privileges referred to above, to the extent of the amount owing for services or material, upon the value of the property on which the labour or material has been expended. In addition, certain of the privileges single out special classes of employees, such as fishermen, lumbermen, jewellers and threshers, for special protection deemed necessary from the peculiar nature of their services, or of the materials on which they are expended.

This may bring us to the second division in the scheme above outlined, namely, legislation for the bodily and moral protection of the working-man. Laws of this type naturally take their colour from the particular class of the work and its immediate surroundings :

Factories Acts.—Every province in the Dominion, with the exception of Prince Edward Island and Saskatchewan, has enacted Factories acts. The earliest Factories act was that of Ontario, passed in 1884. An act was passed by the Province of Quebec in the following year, and by Manitoba in 1900. The Nova Scotia act was passed in 1901, the New Brunswick act in 1905, the British Columbia act in 1908 and the Alberta act in 1910. In Ontario and Quebec inspectors to enforce this legislation were appointed shortly after the acts became law. Ontario has at present a staff of ten inspectors, and Quebec a staff of eight, including in each case two female inspectors. One inspector has been appointed in each of the Provinces of Nova Scotia, New Brunswick, Manitoba and British Columbia. Sanitary surroundings, the prohibition of child and female labour except under rigorous supervision, the safeguarding of machinery,

and the protection of the morality of employees, are the chief aim of this extensive body of statutes and regulations.

Shops Acts.—All the provinces, again, with the exception of Prince Edward Island, Saskatchewan and Alberta, have Shops acts, modelled upon British precedent and aiming to safeguard the employees of the smaller industrial and mercantile establishments in much the same way as the Factories acts provide for the large manufactories.

As a supplement to the Shops and Factories acts may be mentioned the provision of the provinces for the inspection of steam-boilers, and the safeguarding of horse-powers and other machinery in the open air.

Mines Acts.—Nova Scotia, Alberta and British Columbia have extensive legislation for the protection of employees in coal-mines. The same provinces with Ontario and Quebec give similar protection to employees in metalliferous mines. In all a rigorous system of inspection is enforced.

Education, being in the hands of the provinces, reacts to a considerable extent on the labour laws. The application of the age limit to children in factories, mines, shops, etc., is reinforced in certain of the provinces by clauses requiring compulsory attendance at school. Technical education has been undertaken to a certain limited extent in Nova Scotia, Quebec, Ontario and Manitoba, and the investigation by royal commission of the situation in this respect throughout Canada in the year 1912 marked the eve of more important and systematic development.

This last class of legislation raises one of the most involved and bitterly controversial of legislative problems, that arising out of the attempt to define the responsibility of employers for the welfare of their workmen in the general course of their employment and the region in which the responsibility of the workman begins. Because of certain clear-cut differences in method, the legislation of the Canadian statutes illustrates particularly well the two leading characteristics of the whole body of provincial labour laws, namely, the constant looking to the mother country for leadership, and the tendency to disparity in the laws of the several provinces. For this reason a somewhat more extended statement may

be made in concluding the whole treatment of labour legislation, the more so that it is in this division of the field that the provincial legislators are at the moment chiefly occupied.[1]

By the common law of England the individual is liable for damages for any injury occasioned by his own negligence to the person or property of another. Similarly, by the common law, a person is held responsible for any damage to another caused by the negligence of his employee, providing the latter, at the time he committed the fault, was within the general scope of his employment. Under these provisions it would appear obvious that a workman might proceed against his employer for damages in the case of injuries received as a consequence of his employment, both when due to the negligence of the employer himself or to that of a fellow-workman, subject, of course, in each case to the further principles of the law with reference to contributory negligence, and to the fact that no damages can be levied where the injured person voluntarily encountered the risk. There had not been, however, in England, prior to the year 1836, any instance of a workman proceeding against an employer for damages under the second of the above-mentioned contingencies, namely, when the injury resulted from the act of a fellow-employee, and the bringing of the first action of the kind had the effect of eliciting the interpretation of the law which was to stand for nearly half a century, and which became the basis of a controversy which has continued up to the present. Under this rule, to which was given the name of 'The Doctrine of Common Employment,' an employer, though bound to compensate his workman for injuries received from the negligence of himself, or his partner, was not liable in any way for the consequences of the acts of the injured man's fellow-employee. His liability to persons

[1] The statement which follows is based chiefly on the following, to which the reader is referred for more detailed information: *Four Lectures on the Law of Employers' Liability at Home and Abroad*, by Augustine Birrell, M.P., 1897; *Appendix CLIX*, by Sir Frederick Pollock, *of the Report of the Royal Commission on Labour, 1893-94; Reports of Select Committees of 1886 and 1904;* Dawbarn on *Employers' Liability*, with notes on the Canadian Law by A. C. Forster-Boulton (1907); *Accidents to Workmen*, by R. M. Minton-Senhouse; see also Webb, *Industrial Democracy*, chap. vii.

outside his service was thus far more extensive than to his own employees. As further decisions rendered the principle first enunciated in 1837 more stringent, it came in point of fact to be impossible for a workman to recover against his employer for any act whatever of a fellow-employee. The history of the attempt to improve, in the interest of the working-men, the common law situation in this respect, is the history of the movement for 'employers' liability' or 'workmen's compensation' legislation.

The first tangible result of the agitation appeared in the Employers' Liability Act of 1880. This did not entirely abolish the doctrine of common employment, but it secured its practical abolition in five specified cases. It placed no general restriction upon the doctrine of common employment, though it distinctly specified several classes of fellow-employees whose neglect rendered their employer liable. The act excluded seamen, domestic servants and any servant employed in menial labour from its scope. It required that notice of the injury should be given and action brought within a limited time, the amount of compensation in any case not to exceed three years' earnings of the workman in his employment. In the case of fatal accidents the rights passed to the dead man's representative.

The act of 1880 had been in force less than two years, when a decision by the courts greatly modified the degree of protection it afforded. According to the finding in question, if a workman continued in employment after receipt of a notice that he must forgo his rights under the act and accept instead a claim on a benefit club to which the employer contributed, it was held that he had entered into a contract to relinquish his rights under the act, and that such a contract was not against public policy. As a result, employers, in order to avoid the risk of indefinite liability or the annoyance of frequent suits for compensation, adopted the plan of establishing special funds to which both employer and workman subscribed, and from which relief in cases of accident was provided. Although this method provided compensation and avoided the expenses of litigation, it was strenuously objected to on the ground that such funds had the tendency

to attach workmen permanently to the service of the employer, and that the 'contracting out' was made practically under duress, at the same time that the workman was reduced to a system of individual bargaining and the inducement diminished to employers to take precautions against individual accidents. For several years following, therefore, the representations of labour on the subject of employers' liability took the form of a persistent agitation against 'contracting out.' In addition, the difficulty of proving negligence, and the risks of litigation, had reduced the operation of the act to narrow proportions.

In the year 1893 a bill which declared against 'contracting out,' except under certain safeguards, was introduced, but was withdrawn in the face of the opposition to any measure that would allow 'contracting out' under any circumstances. Four years later the situation was entirely changed by the extensive and revolutionary Workmen's Compensation Act of 1897. 'The precedent set by Germany in 1884,' says the Report of the Workmen's Compensation Committee of the parliament which sat in 1904, 'in passing a law imposing upon employers in certain trades the duty of providing adequate security for compensation to persons injured by accidents arising out of their occupation, by means of a system of compulsory insurance, had had a powerful effect. . . . The method of compulsory insurance was considered to be unsuitable to this country. It was, therefore, necessary to adopt other means. Accordingly, the suggestion was made that employers should be made personally liable to compensation for this particular class of accidental injury.' Briefly stated, the outstanding features of this important measure were as follows : Relinquishing any attempt to define the degree to which an employer's liability should extend, the new law made him, in nearly all the great industries, individually liable in all cases where personal injury by accident, arising out of, or in the course of, employment, was caused to the workman. If personally negligent, he remained liable to the provisions of the common law. The practical effect, accordingly, was to insure the employees against accidents arising out of their employment. No attempt was made to classify accidents,

though, of course, in cases where the accident was solely attributable to the wilful misconduct of workmen, compensation was disallowed; even under such circumstances, however the onus of proof was placed upon the employer. The doctrines of common employment and contributory negligence were practically abolished in the dangerous trades. 'Contracting out' was expressly forbidden, except under special circumstances. Though the act was regarded as an experiment, it was applied to nearly one-third or one-half of the whole working population included in the dangerous trades. The employer, however, was not made liable for any injury which did not disable a workman from earning full wages for a period of at least two weeks.

An amendment of the act in 1900 extended its provisions to agricultural labour, but made no other change, and it was not until 1906 that further radical development took place. This was under an act which repealed and consolidated the acts of 1907 and 1900, at the same time introducing three highly important extensions. By the first of these the minimum period of capacity entitling to a weekly payment was reduced from a fortnight to one week. Where incapacity lasted for two weeks or longer the weekly payments were to commence from the date of the injury or from a fortnight after that date, as previously. Workmen under twenty-one years of age were also dealt with more liberally. A second extension made the act applicable to practically all workmen, including seamen, retail clerks, professional sportsmen, domestic servants and organists. By the third extension the scope of the act was made to include the contracting of certain diseases due to the nature of the employment, namely, anthrax, poisoning by lead, mercury, phosphorus or arsenic, and ankylostomiasis. This list has since been further extended, and regulations adopted relating to the scale of compensation for industrial diseases.

The above brief sketch will give some general idea of the extent to which this method of dealing with the problem arising out of the dangers inherent in modern industrial processes has been carried in the country which has furnished the model to others, and especially in Canada. It will enable

us to state succinctly and in appreciable terms exactly what has been done in Canada.

The first province to enact legislation with regard to workmen's compensation was Ontario, which passed a Workmen's Compensation Act in the year 1886. A somewhat similar measure, restricted in its operations to railway employees, had been enacted in 1881, following the report of a special committee of the legislature. The act was amended in 1889, 1892, 1893, 1897 and 1899, consolidations being included in the revised statutes of 1887 and 1897. British Columbia was the second province to pass workmen's compensation legislation, an Employers' Liability Act having become law in 1891 ; this was amended in 1892 and thoroughly revised and remodelled ten years later. Manitoba passed an act in 1893. This was amended in 1895 and 1898, and consolidated in 1902. At the 1910 session of the legislature, however, an entirely new act became law. Similarly, the Nova Scotia act of 1900 was replaced in 1909 by a new measure. New Brunswick passed an Employers' Liability Act in 1903 and amended it in 1907 and in 1908. Alberta in 1908 placed an act modelled on the British act of 1897 on the statute-book, while Quebec, after an investigation under royal commission, passed its first act of the kind in 1909. Saskatchewan followed in 1911. Prince Edward Island is without legislation of this character.

As to the extent to which the provincial laws in Canada are founded on British precedent, it may be stated that the most advanced Canadian legislation conforms to the British act of 1897. The acts of 1900 and 1906 have nowhere been copied. The most complete adoption within these limits has been made in Manitoba, Alberta and Saskatchewan, whose legislation is now substantially identical, though the original act in Manitoba was based on the British act of 1880. The legislation of Nova Scotia and British Columbia are, again, essentially identical with each other, but less elaborate and stringent than that of Manitoba and Alberta, though still following closely the British act of 1897. In both of these provinces the original legislation was on the model of the British act of 1880. In Ontario and New Brunswick the

basic plan of the legislation in each is that of the British act of 1880, though some important amendments have been made in the spirit of the act of 1897, the amendment of 1899 in Ontario being virtually by way of introducing the principle of arbitration which was so prominent a feature of the latter British law. It is recognized, however, that the Ontario law as it stands is inadequate, and at the present moment (1912) a royal commission has the whole subject under consideration with the object of suggesting legislation. The Quebec act stands wholly by itself as to form, and does not visibly follow British precedent as do those of the other provinces. This is, of course, due largely to the fact that whereas workmen's compensation legislation in the other provinces was, as in England, an outgrowth upon the common law of England, the Quebec act is an outgrowth upon the Civil Code of that province, it being for many years a disputed point in Quebec to what extent special legislation of the kind was necessary and to what extent conditions under the Civil Code of the province resembled conditions under the common law of England.

Summing up the labour legislation of Canada, the record of the Dominion may be described as progressive. In the producing of machinery for the settlement of trade disputes by compulsory investigation new ground has been broken and no small reputation acquired. Particularly beneficial has been legislation of the provinces with regard to child and female labour and for the protection of workers in dangerous and hazardous undertakings. As the Dominion expands industrially and the demands of the situation increase, labour, to judge by its achievements, ought not to find it difficult to secure the protection to which it has proved its claim. It is significant that on several occasions in the past the Trades and Labour Congress has resolved rather to secure the enforcement of existing laws than to press for the enactment of new ones.

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